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*Iowa State University*

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**The role of parental stigma on self-stigma and help-seeking intentions: Differences between  
Asian, Asian American, and Caucasian American populations**

by

**Spurty Surapaneni**

A dissertation submitted to the graduate faculty  
in partial fulfillment of the requirements for the degree of

**DOCTOR OF PHILOSOPHY**

Major: Psychology (Counseling Psychology)

Program of Study Committee:  
Lisa M. Larson, Major Professor  
Norman Scott  
David Vogel  
Meifen Wei  
Daniel Russell

The student author, whose presentation of the scholarship herein was approved by the program of study committee, is solely responsible for the content of this dissertation. The Graduate College will ensure this dissertation is globally accessible and will not permit alterations after a degree is conferred.

Iowa State University

Ames, Iowa

2018

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## ABSTRACT

The current study observed the relation between public stigma, self-stigma, student-perceived mother stigma, student-perceived father stigma, and help-seeking intentions for three ethnic groups: Asians, Asian Americans, and Caucasian Americans. A total of 804 ( $N = 319$  Asians,  $N = 160$  Asian Americans, and  $N = 325$  for Caucasian Americans) students at a large Midwestern university completed an online survey in fall 2016 and spring 2017. Data was analyzed using path analyses (MPlus 7.2) and hierarchical multiple regressions (SPSS 22). First, Vogel et al. (2007) stigma model (see Figure 1, 2) was a good fit for Asians, Asian Americans, and Caucasian Americans although self-stigma did not relate to intentions to seek help for Asian Americans. Second, the parent stigma model (see Figure 5), adding on student-perceived mother stigma and student-perceived father stigma to the Vogel et al. (2007) stigma model, was a better fit for Asians, but not for Asian Americans and Caucasian Americans. Last, Asian Americans and Caucasian Americans did not significantly vary on any paths of the parent stigma model. However, Asians did significantly vary from Asian Americans and Caucasian Americans. In particular, the relation of student-perceived mother stigma to self-stigma was significant for Asians but not Asian Americans, the relation of public stigma to help-seeking intentions was significant for Asians but not Caucasian Americans, and the relation of public stigma to self-stigma was significantly stronger for Caucasian Americans than Asians. Results were discussed based on prior research and cultural differences. Limitations, implications, and future studies were discussed.

## CHAPTER 1. INTRODUCTION

The role of seeking help on incoming and continuing college students has been a main focus of the current literature. Given the growth in college opportunities and access, more young adults are attending college to earn a Bachelor's degree. For many of these students, this is their first experience away from home, and they are learning to navigate the world without the guidance of their parents. Given the newfound independence, students may struggle with adjusting and handling the difficulties of a new place that may cause distress. College counseling centers aim to help students learn to manage these difficulties. However, students do not utilize these services or very few do.

There is a discrepancy between those who report needing services and those who actually seek and receive services. 50% of undergraduates had a diagnosable condition but only 25% to 50% received treatment (Blanco et al., 2008). Benton, Robertson, Tseng, Newton, and Benton (2003) found that 17% to 22% of undergraduates experienced vocational difficulties, but only roughly 6% received help for these difficulties (Fouad et al., 2006). College students, especially African-American and Latino students, gave greater cultural importance to informal sources (e.g., parents, friends, community) to resolve problems than formal sources (e.g., counseling) (Constantine, Wilton, & Caldwell, 2003). Other researchers have provided similar reasoning in explaining the discrepancy to be a result of favoring informal sources over formal sources to resolve concerns (e.g., Tinsley, de St. Aubin, & Brown, 1982; Utsey, Adams, & Bolden, 2000).

Corrigan (2004) conceptualized the discrepancy to be a result of stigma; stigma stalls individuals from engaging in meaningful action to reduce distress. Based on Modified Labeling Theory (MLT; Link, Cullen, Struening, Shrout, & Dohrenwend, 1989), society holds negative views (e.g., flawed, incompetent) towards individuals who seek help (public stigma) and these

individuals internalize the negative views (self-stigma); this results in lowered self-esteem and increased shame for the individual. Multiple studies have examined the relation between public stigma, self-stigma and help-seeking intentions and found that self-stigma mediates the relation between public stigma and help-seeking intentions (e.g., Vogel, Wade, & Hackler, 2007).

The current author examined if the reliance of informal sources over formal sources may influence self-stigma and help-seeking intentions. Students may rely on informal resources due to proximity of these resources to themselves. Ecological systems theory (Bronfenbrenner, 1979) states that proximal relationships influence the young adult to a greater extent than distal relationships. Students may be physically and emotionally closer to informal resources than formal resources. In particular, the emotional connection may provide a sense of security and comfort. Given the importance of proximity, the current author theorized that individuals who are physically and emotionally closer to the student (e.g., family, friends) might influence his/her beliefs to a greater extent than society, which is physically and emotionally distant. Applying this to stigma and help-seeking intentions, the researcher found a few studies that hypothesized that the relation between stigma of close others, defined as close others' negative views towards someone seeking help, and self-stigma would be significantly stronger than the relation between public stigma and self-stigma. However, the results found that public stigma was a similar or significantly stronger predictor of self-stigma than the stigma of close others (e.g.,  $\beta = .63$  for public stigma,  $\beta = .22$  for stigma of close others; Ludwikowski, Vogel, & Armstrong, 2009;  $t = 3.60, p < .001$ ). The findings seem counterintuitive to the role of proximity ascribed by the ecological systems theory. One reasonable explanation was that "individuals [may be] more likely to experience both positive and negative messages from close others, [whereas] public stigma may be more pervasive and represent clearer negative messages" (Ludwikowski et al.,

2009, p. 414). Therefore, the relation between stigma of close others and self-stigma may be stronger than the relation between public stigma and self-stigma if close others are not all considered at the same time. Bronfenbrenner (1979) stated the parental relationship as the closest and longest bond a child has and therefore, the most influential relationship in a child's life. Moreover, parents are especially salient at this time in a student's life as they begin their journey into adulthood. Students' internalized perceptions of their parents' stigma towards seeking help may be influential in their own self-stigma towards seeking help. Vogel, Michaels, and Gruss (2009) did find evidence that parents' help-seeking attitudes were linked to child's help-seeking attitudes ( $\beta = .18$ ), which were linked to help-seeking intentions ( $\beta = .71$ ). In addition, the relation between parents' help-seeking attitudes and child's help-seeking attitudes varied based on the level of attachment, with high attachment having a stronger relation ( $\beta = .54$ ) than low attachment ( $\beta = -.08$ ; Vogel et al., 2009a). The current author aims to focus on two primary relationships: mother and father. In particular, the current author will examine the relation between student-perceived mother stigma and self-stigma, student-perceived father stigma and self-stigma, student-perceived mother stigma and intentions to seek help, and student-perceived father stigma and intentions to seek help. Student-perceived mother stigma can be defined as the student's perceptions of his or her mother's negative view of someone seeking help for personal concerns. Student-perceived father stigma can be defined as the student's perceptions of his or her father's negative view of someone seeking help for personal concerns.

The role of parents in students' lives varies across cultures (Sue and Sue, 2008). Specifically, there is considerable evidence to suggest that Asian and Asian American students are more culturally bound to their parents regarding respecting their authority and being interdependent (e.g., Kim, 2007) in comparison to their Caucasian American counterparts. In

addition, Sue and Sue (2008) emphasized that collectivist cultures, specifically Asian and Asian American cultures, place greater value on adhering to familial beliefs than individualist cultures, particularly the mainstream Caucasian American culture. Given that the importance of adhering to parental beliefs varies significantly amongst collectivist and individualistic cultures, the current author wanted to examine if there would be differences between the relation of student-perceived mother/father stigma and self-stigma and the relation of student-perceived mother/father stigma and help-seeking intentions. In particular, the author hypothesized that Asian and Asian American individuals would have a stronger relation between student-perceived mother/father stigma and self-stigma and student-perceived mother/father stigma and help-seeking intentions than their Caucasian American counterparts.

The purpose of this study is twofold. First, the author investigated the role of mother and father, separately, on students' self-stigma and help-seeking intentions by supplementing student-perceived mother/father stigma as an independent variable into Vogel et al.'s (2007) model. Second, the author evaluated if this model differed based on culture, especially if the relations between student-perceived mother/father stigma and self-stigma and student-perceived mother/father stigma and help-seeking intentions will be stronger for Asian and Asian American populations compared to a Caucasian American population.

Hypothesis 1. Vogel et al.'s (2007) fully mediated model (Figure 2) would be a good fit for the Asian and Asian American college population.

Hypothesis 2. The expanded model (Figure 5), with student-perceived mother stigma and student-perceived father stigma as independent variables, would be a better fit for Asian, Asian American, and Caucasian American college students compared to Vogel et al.'s (2007) model (Figure 1).

Hypothesis 3. The relations between variables (path d, e, f and g) for the expanded model (Figure 5) would be stronger for Asian and Asian American college students compared to their Caucasian American counterparts.

## CHAPTER 2. LITERATURE REVIEW

The outline of the literature review is explained here as an easy to follow guide and informs the reasoning for conducting this study. First, a general review of stigma and help-seeking will be presented. Second, the theoretical models and empirical literature used to conceive the original model (Vogel et al., 2007) will be detailed. Third, the reason for adding additional variables to the model, namely student-perceived mother stigma and student-perceived father stigma will be discussed via a focus on theoretical underpinnings and prior empirical research. Finally, the role of culture, in particular Asian, Asian American and Caucasian American, on these variables will be examined through empirical literature.

### General Overview of Stigma and Help-Seeking

#### Stigma

Goffman (1983) described stigma as any physical or attributional mark that results in social dissatisfaction and social dissociation. Scholars further conceived stigma as being a social construct in which the public overtly (e.g., evasion) or covertly (e.g., no eye contact) reacted to stigmatized individuals (Bos, Pryor, Reeder, & Stutterheim, 2013). In addition, society stigmatized individuals with the aim of maintaining control and protection by creating an ‘us’ versus ‘them’ mentality (Bos et al., 2013). From this, two research paths developed, one on prejudice (e.g. societal discrimination) and one on stigma (e.g. norm deviance). The focus of this study is on stigma, particularly research focusing on psychological concerns. As scholarship bloomed in this area, studies focused on developing, defining, and researching the concepts of public stigma and self-stigma. Both of these concepts will be discussed in detail in the next few sections.

Public stigma. Public stigma, referred to in some studies as social stigma or perceived stigma, examines how society responds to stigmatized individuals, especially with a focus on the social (e.g., interaction) and psychological (e.g., thoughts) aspects (Bos et al., 2013). Public stigma contains cognitive, affective, and behavioral features that correspond with stereotypes, prejudice, and discrimination, respectively. Stereotypes reflect the thoughts of society towards stigmatized individuals as dangerous and unpredictable (Bos et al., 2013). Prejudice reflects the emotional connection of society with these thoughts and the endorsement from society that these thoughts are true and accurate (Rusch, Angermeyer, & Corrigan, 2005). Discrimination reflects how society overtly or covertly rejects individuals who fit the stereotype of a stigmatized individual (Bos et al., 2013; Rusch et al., 2005). Thus, an individual begins with knowledge of stereotypes about the mentally ill, enacts prejudice when s/he accepts the stereotype as true and fears the mentally ill, and discriminates when s/he enacts actions that implicitly or explicitly discard the mentally ill.

While the concentration of public stigma was on how society forms stigma, researchers examined how public stigma impacted the stigmatized. In particular, scholars found that stigmatized individuals needed help, but evaded it due to public stigma. Therefore, public stigma of seeking help was important to address. Public stigma of seeking help can be defined as society seeing an individual who seeks help as socially unacceptable and having less favorable perspective towards the individual (Corrigan, 2004; Sibicky & Dovidio, 1986). Scenario-based research concluded that individuals who sought help for mental illness were seen less favorably than individuals with only a mental illness (Ben-Porath, 2002). A similar process seems to occur for public stigma of seeking help as does for public stigma. First, society has negative stereotypes of individuals who seek help as being emotionally unstable, less interesting, and less

confident (Ben-Porath, 2002). These stereotypes when endorsed by society result in prejudice against these individuals and then overt and/or covert discrimination of these individuals. The end result may be that stigmatized individuals, who cannot evade their mental illness, may evade seeking help as to reduce the associated public stigma with a result of negative consequences for the individual (e.g., poor coping). The predominant measures used to assess the public stigma of seeking help are the Perceived Devaluation-Discrimination Scale (Link et al., 1987) and the Stigma Scale for Receiving Psychological Help (SSRPH; Komiya, Good, & Sherrod, 2000).

**Self-stigma.** Self-stigma captures how stigmatized individuals focus public stigma inwards (Corrigan, 2004). In the literature, self-stigma has been considered in two avenues, felt stigma and internalized stigma. Felt stigma describes the fear that an individual has about being stigmatized for being part of a stigmatized group, whereas internalized stigma describes the internalization of society's view as true of self and results in reduced self-esteem and self-worth (Bos et al., 2013). The emphasis of this review will be on internalized stigma and not felt stigma, as Vogel et al.'s (2007) model defines self-stigma as internalized stigma.

Similar to public stigma, self-stigma can be conceptualized as having affective, behavioral, and cognitive components that align with prejudice, discrimination, and stereotypes, respectively (Rusch et al., 2005). Stereotypes reflect the negative views an individual has about himself/herself as being incompetent and weak. Prejudice happens when the individual accepts these beliefs as true and accurate of himself/herself and demonstrates reduced self-esteem. Last, discrimination occurs when the individual engages in self-harming behavior, such as not seeking help (Rusch et al., 2005). Therefore, self-stigma can directly impact adaptive behaviors of reducing distress and result in maladaptive coping and neglect of resources.

Self-stigma of help-seeking has been studied given that self-stigma may impede purposeful action. Self-stigma of seeking help can be defined as an internalization of the public stigma of seeking help. Therefore, the individual perceives himself/herself as undesirable for seeking help. Corrigan and Rao (2012) demonstrated how public stigma becomes internalized as self-stigma through a stage format. First, the individual is aware of the negative stereotypes held by society. Second s/he agrees that those stereotypes types are true of self. Last, the individual allows the stereotypes to embed themselves as part of his/her identity and discourage self-esteem and help-seeking (Corrigan & Rao, 2012; Rusch et al., 2005). The predominant measure of self-stigma is the Stigma of Seeking Help Scale (SSOSH; Vogel, Wade, & Haake, 2006) and has been used widely in studies focusing on understanding the role of internalized stigma (e.g., Nam et al., 2013).

### Help-seeking

Help-seeking is defined as an individual seeking professional help for concerns that result in a deficit of psychological and physical functioning. Individuals tend to seek help when they perceive their concerns to be greater than others and want to dissipate the distress associated with those concerns (Goodman, Sewell, & Jampol, 1984; Mechanic, 1975). However, Tinsley et al. (1982) stated that individuals use informal sources (e.g., parents) to a greater degree than formal sources (e.g. counselor) and professional help is contemplated as a final option (Hinson & Swanson, 1993). Therefore, help-seeking may not only be hindered by stigma, but also other sources of support.

Help-seeking has been inspected in the literature in three forms; attitudes, intentions, and behavior (Gulliver, Griffiths, Christensen, & Bewer, 2012). Attitudes represent the beliefs people have about professional help-seeking. Intentions reflect their willingness to seek professional

help. Behavior reflects actually seeking professional help (Gulliver et al., 2012). Help-seeking measures concentrate primarily on these three areas. The predominant measures for attitudes and intentions are the Attitudes towards Seeking Professional Psychological Help Scale (ATSPPHS; Fischer & Farina, 1995), and the Intentions to Seek Counseling Inventory (ISCI; Cash, Begley, McCown & Weise, 1975), respectively. These measures have been widely utilized in many studies and are the standard measures to use for help-seeking attitudes and intentions. For this study, the focus is on help-seeking intentions, as the researcher is interested in the most proximal indicator of actual behavior.

### Theoretical Models

This section details the two underlying theories used extensively in prior literature to understand the relations between public stigma, self-stigma, and help-seeking attitudes/intentions/behavior. First, the details of modified labeling theory (MLT; Link et al., 1989) will be explored followed by a review of the Theory of Planned Behavior (TPB; Ajzen, 1985).

#### Modified labeling theory (MLT)

MLT (Link et al., 1989) was formulated as a response to the original labeling model (Scheff, 1966) and the criticism it received. Scheff (1996) proposed that labeling caused mental illness which many researchers (e.g., Gove, 1982) described as being too bold an assertion. MLT concentrated on how labeling resulted in negative consequences that impact mental illness. Therefore, the consequences of labeling became the focal points of the theory. First, stereotypes are present in society which are rooted in the discrimination and devaluation mentally ill/distressed people will encounter (Cumming & Cumming, 1965; Goffman, 1963). Second, individuals who are distressed/mentally ill can self-label or be labeled by others as fitting the

stereotypes, and react in maladaptive ways (e.g. isolation, privacy) resulting in negative consequences such as reduced self-worth.

MLT has been used as a theoretical foundation for studies (e.g., Vogel et al., 2007; Ludwikowski et al., 2009) that have observed the relation between public stigma and self-stigma. The stereotypes that exist in society as well as society labeling individuals as distressed/mentally ill was similar to public stigma, whereas, the internalization process of these stereotypes and negative consequences (e.g. negative self-view) that result was similar to self-stigma.

#### Theory of planned behavior (TPB)

TPB (Ajzen, 1985) describes how individuals decide to or decide not to engage in certain behaviors. First, attitudes are based on behavioral beliefs (beliefs about the outcome) that individuals have about performing a specific behavior, in this case help-seeking. If the behavioral beliefs are positive, then the attitudes toward the behavior are positive, whereas if the behavioral beliefs are negative, then the attitudes toward the behavior are negative. Intentions towards a behavior are based on behavioral beliefs (attitudes) and normative beliefs (subjective norms). Subjective norms are defined as an individual's perception of how those close to him/her would react to him/her engaging in a particular behavior, in this case help-seeking (Ajzen, 1985).

In prior literature on stigma and help-seeking, TPB has been used to conceptualize that stigma towards help-seeking influences an individual's normative beliefs negatively. Thus, an individual who has high public stigma and self-stigma of seeking help will have negative outcome beliefs (behavioral beliefs) about seeking help. Therefore, s/he will have negative attitudes towards seeking help. In addition, if an individual has negative attitudes, s/he will have fewer intentions to seek help.

## Relations between Variables

### Public stigma and self-stigma

Vogel, Bitman, Hammer, and Wade (2013) investigated the relation of public and self-stigma overtime. The researchers hypothesized that public stigma was internalized as self-stigma and tested this via a longitudinal study. Participants completed measures of public stigma and self-stigma at Time 1 (T1) and three months later at Time 2 (T2). Results suggested that public stigma related positively with self-stigma at both T1 and T2 ( $r = .46$ ,  $p < .001$  for T1;  $r = .18$ ,  $p < .001$  for T2). In addition, public stigma at T1 was positively correlated with self-stigma at T2, meaning public stigma was internalized as self-stigma (Vogel et al., 2013).

A multitude of studies have inspected the relation of public and self-stigma in relation to help seeking attitudes, intentions, and behavior. Overall, these studies have concluded a positive relation between public stigma and self-stigma (e.g., Vogel, Wade, & Aschmen, 2009). Only one study reported a non-significant relation between public stigma and self-stigma ( $r = .05$ ,  $p > .05$ ; Loya, Reddy, & Hinshaw, 2010). In general, based on research and theory (MLT), there is more support that public stigma and self-stigma are positively related rather than negatively related or non-significant.

### Stigma and help-seeking intentions

This segment will detail the empirical findings between public stigma and help-seeking, self-stigma and help-seeking, and public stigma, self-stigma and help-seeking. Help-seeking will be examined as intentions.

Public stigma and help-seeking intentions. This portion highlights the studies examining the relation between public stigma (social stigma, perceived stigma) and help-seeking intentions.

Research inspecting this relation has found for the most part a negative relation between the variables.

Barney, Griffiths, Jorm, and Christensen (2005) surveyed a depressed Australian community to investigate how public stigma influenced the likelihood of seeking help from a health professional (general practitioner, counselor, psychologist, psychiatrist, and complementary practitioner). Participants' public stigma was a composite of their perceptions that a health professional would see them as unbalanced (5 items), condescending (5 items) and devalued (5 items). Help-seeking intentions were measured using a one-item question that asked participants to indicate how likely they were to seek help from a health professional (general practitioner, counselor, psychologist, psychiatrist, and complementary practitioner). Results stated that there was a significant negative relation between public stigma and the likelihood of seeking help from a health professional ( $OR: 1.19; p < .001$  for counselor), such that at greater amounts of public stigma the likelihood of seeking help from a health professional was lower. Similarly, Deane and Chamberlin (1994) observed, in a sample of college students in Great Britain, if public stigma influenced the likelihood of seeking help from a professional psychologist or counselor. Public stigma, called social stigma in this study, was measured using the Stigma Concerns section of the Thoughts about Psychotherapy Survey (TAPS; Kushner & Sher, 1989) and 11 other items pertaining to social stigma. Help- seeking intentions were measured with a one-item question about the possibility of visiting a professional psychologist or counselor. The investigators reported that there was a significant negative relation between social stigma and likelihood of seeking help from a professional psychologist or counselor ( $\beta = -.198, p < .05$ ), such that at greater amounts of social stigma the likelihood of seeking help from a professional psychologist or counselor was lower.



While most studies report a negative relation, one study by Lally, Conghaile, Quigley, Bainbridge, and McDonald (2013) surveyed college students and found a non-significant relation between public stigma of mental illness and intentions to seek help for emotional or mental health problems. The PDD (Link et al., 1987) scale was used to measure public stigma, whereas a one-item statement asking if one would seek or not seek help for emotional and mental health problems was used to measure help-seeking intentions. Researchers reported a null relation based on the likelihood ratio of intending to seek help for emotional or mental health problems not being related to public stigma ( $OR: .871, p > .05$ ).

In addition, a systematic review was conducted by Clement et al. (2015) to examine the relation between perceived stigma (public stigma) and intentions to seek help for mental health concerns from a physician, psychologist or counselor. From five studies, the researchers concluded an overall negative relation between public stigma and intentions to seek help for mental health concerns from a physician, psychologist or counselor; correlations ranged from  $r = -.09$  to  $r = -.22$ , with a  $p < .05$  or  $p < .001$ . Therefore, individuals who have higher public stigma are less likely to seek help.

Self-stigma and help-seeking intentions. This portion highlights those studies that center on self-stigma (internalized stigma) and help-seeking intentions. Barney et al. (2005) reported that, for a group of depressed people, the relation between self-stigma and likelihood of seeking help from a health professional (general practitioner, counselor, psychologist, psychiatrist, and complementary practitioner) was significantly negative ( $OR: 1.87, p < .001$ ), such that at greater levels of self-stigma the likelihood of intending to seek help was reduced. Vogel et al. (2006; study 5) explored how future help-seeking from a psychologist/counselor could be predicted by the SSOSH, in a sample of college students. The researchers recruited students from the prior

studies (Vogel et al., 2006, study 1, 2 and 3) and asked them if they had sought counseling. Discriminant analysis was conducted to see if SSOSH (predictor variable) could differentiate between those who sought help from a psychologist/counselor and those who did not (criterion variable). Results supported a proportional difference in self-stigma between help-seekers and non-help-seekers, such that those who endorsed high stigma pursued help from a psychologist/counselor at a lesser proportion than those who endorsed low stigma [ $\chi^2(1, 654) = 5.05, p < .05$ ]. However, the significant variance may be due to a large sample size (power) and the effect size may be small.

Clement et al. (2015) conducted a systematic review to explore the relation between internalized stigma (self-stigma) and intentions to seek help for mental health concerns from a physician, psychologist or counselor. From four studies, the researchers concluded an overall negative relation between self-stigma and intentions to seek help for mental health concerns from a physician, psychologist or counselor; correlations ranged from  $r = -.27$  to  $r = -.40$ , with a  $p < .001$ . Therefore, individuals who perceive greater self-stigma are less willing to seek help.

Public stigma, self-stigma and help-seeking intentions. Few studies have inspected the relation amongst all three variables. However, the assertion that public stigma and self-stigma both exclusively contribute to help-seeking intentions and behavior makes sense theoretically. One study has investigated this claim and reported significant results.

Vogel et al. (2007) suggested that self-stigma and attitudes towards counseling would fully mediate the relation between public stigma and intentions to seek counseling for college students. Using structural equation modeling (SEM), the authors verified the fully mediated model and the partially mediated model to examine the best fitting model. For the fully mediated model, the direct paths between public stigma and attitudes, and public stigma and intentions

were removed; results supported a good fit to the data,  $\chi^2(51, N = 676) = 86.09, p = .001$ (CFI = .99; SRMR = .03; RMSEA = .03). For the partially mediated model, all direct and indirect paths were included, and the model was a good fit as well,  $\chi^2(48, N = 676) = 82.86, p = .001$ (CFI = .99; SRMR = .03, RMSEA = .03). Using the parsimonious principle, the authors chose the fully mediated model as the best model. The researchers specified that the fully mediated model showed that public stigma correlated positively to self-stigma, self-stigma correlated negatively to attitudes, and attitudes correlated positively to intentions to seek counseling. This study concluded that self-stigma and attitudes towards counseling are critical mediators of the relation between public stigma and intentions to seek counseling. In particular, the study provided support that self-stigma is a more proximal indicator of intentions to seek counseling compared to public stigma. The results aligned with MLT which states that the view of larger society is internalized by the person who need helps and the negative self-view results in less willingness to seek help. This study also cemented the path for researchers to continue looking at other mediating variables as well as expand the model.

#### Additions to the Model

This section highlights the theoretical and empirical basis for expanding the original model to include student-perceived mother stigma and student-perceived father stigma and their direct role on help-seeking intentions and indirect role on help-seeking intentions through self-stigma. First, the ecological systems theory will be defined; then a clear conceptualization will be provided of how public stigma, self-stigma and student-perceived mother/father stigma can be explained by this theory. Second, a brief review of the empirical literature that supports the use of ecological systems theory to examine stigma will be presented. In particular, the author will

highlight what parts of ecological theory have been supported by this research and what parts need to be addressed further.

### Ecological systems theory

In his seminal work, Urie Bronfenbrenner (1979) argued that the role of the environment in shaping a child's development was heavily neglected in research. He stated that research focused heavily on dispositional factors (e.g., intelligence) to determine the developmental trajectory of a child. However, he referenced earlier work that proposed that behavior was a function of the person and the environment,  $B = f(PE)$  (Lewin, 1935). Given the neglect, Bronfenbrenner (1979) indicated that his theory, ecological systems theory would examine the complex effect of the environment on a child's development.

Ecological systems theory focuses on conceptualizing "the developing person, the environment, and especially the evolving interaction between the two" (Bronfenbrenner, 1979, p. 3). Therefore, the focus of this theory is the dynamic impact that the child has on the environment and the environment has on the child; this relation is considered to be life-long and multi-layered. Bronfenbrenner (1979) conceptualized the environment "as a set of nested structures, each inside the next, like a set of Russian dolls" (p. 1). In particular, he proposed that there were four levels, namely the microsystem, mesosystem, exosystem, and macrosystem. The microsystem is the most proximal influence of the child's development whereas the macrosystem is the most distal influence. With that said, Bronfenbrenner (1979) highlighted that no matter the proximity of the level, each level was equally important in understanding the child's holistic developmental trajectory. For the purposes of using this theory to conceptualize stigma, only the microsystem, mesosystem and macrosystem will be explored.

Microsystem. The microsystem is “a pattern of activities, roles and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics” (Bronfenbrenner, 1979, p. 22). In breaking down the definition, the term “experienced” is of importance; it emphasizes that development is beyond the objective reality and relies heavily on the subjective perspective of a child. To reference counseling, the counselor may be using silence to give the client space. However, the client may see the silence as judgment or rejection from the counselor. Therefore, the reality and subjective perspective result in different conclusions and reactions to the situation.

Another integral aspect of the microsystem is the interpersonal relationships. Bronfenbrenner (1979) proposed that these relations are formed when one person, the child “pays attention to or participates in activities” (p. 56) with another person (e.g., a parent). The most basic relation described is that of a child and his/her mother which forms the dyad that is the basis for further relations such as triads, tetrads, and etc. The formation of a dyad is an intricate process with multiple layers. First, the child has an observational dyad, where s/he interacts by observing. For example, a child may see his/her mom cook dinner and the mother will acknowledge the observation. Second, the child may form a joint activity dyad in which s/he interacts with another (e.g. a parent). For example, the mother may read a book to the child while the child listens and reacts verbally and nonverbally. In this interaction, there is reciprocity as well as a strive to achieve a balance of power. Through these characteristics, the child develops cognitively and socially. With consistent engagement, the child will consider the other (e.g. a parent) a primary dyad; a primary dyad is one that “continues to exist phenomenologically for both participants even when they are not together [and they] appear in each other’s thoughts and continue to influence one another’s behavior even when apart” (p. 58). For example, a mother

and child may engage in interactive play throughout childhood fostering a dyad that reciprocates each other as well as strives to achieve balance. Through this the child formulates a bond with the mother and considers his/her relation with mother to be a primary dyad. Whilst the emphasis has been on mother-child dyads, this process may occur with any other individual such as father-child dyads and child-friend dyads. In addition, these primary dyads are highly influential in that children will espouse the values of those individuals that are considered a primary dyad (Bronfenbrenner, 1979).

In relation to stigma, the microsystem provides a basis for how student-perceived mother/father stigma may influence self-stigma and help-seeking intentions. As stated by the theory, a primary dyad impacts the child's cognitive development as well as influences a child's behavior. The mother-child dyad and father-child dyad, as described by ecological systems theory, are primary dyads due to the consistent observational and joint activity that occurs amongst the parent and child. Given this, the parent may convey certain verbal and nonverbal messages that the child may perceive as important and incorporate into his/her cognitive schema. For example, the mother or father may have told the child that seeking help for personal problems is not appropriate and a sign of weakness. As a result, the child may then have developed a cognitive schema that asking for help for any personal matter (e.g., depression) is not appropriate and if s/he does, s/he is weak. In addition, the child may have never seen his/her parents seek help or may have seen them actively avoid seeking help. This may influence the child to not seek help as those influencing him have directly or indirectly provided the message that such a behavior is not appropriate.

Mesosystem. The mesosystem is “the interrelations among two or more settings in which the developing person actively participates; a mesosystem is thus a system of microsystems”

(Bronfenbrenner, 1979, p. 25). In the mesosystem, the multiple settings (e.g., home and school) in which the child is directly involved interact with each other to influence the child. The mesosystem is also an opportunity for the child to transmit behavior learned in one setting to another setting. For example, the child may have learned from mother how to build a trusting relationship and thus builds trusting relationships at school. In the reverse order, the child may learn how to express gratitude at school and expresses gratitude to his/her parents. Overall, the mesosystem captures the complex development that occurs when multiple settings interact.

In relation to stigma, the mesosystem captures how an individual's stigma and intention to seek help may be influenced by the complex interactions of microsystems, such as parents, teachers and friends. Bronfenbrenner (1979) described a second-order effect in which a third person can influence a dyad in a facilitative or inhibitory manner. For example, if a child perceives his/her parents to have low stigma towards seeking help and his/her friends to have low stigma as well, the child may develop a consistent cognitive schema that seeking help is appropriate. However, if the child perceives his/her parents to have low stigma towards seeking help and his/her friends to have high stigma toward seeking help, the child may have an inconsistent schema and be unsure if seeking help is appropriate or inappropriate. Therefore, the mesosystem introduces the idea that interactions of the microsystems provide greater complexity for the child's cognitive schema on a concept, in this case stigma of seeking help.

Macrosystem. The macrosystem is “the consistencies in form and content of lower-order systems (other levels) that exist at the level of the subculture or culture as a whole, along with any belief systems or ideology underlying such consistencies” (Bronfenbrenner, 1979, p. 26). The macrosystem reflects that all of the nested levels are formed in regard to a larger cultural structure in which there are certain norms, rules, and laws. It highlights that the individual

defines his/her culture rather than the actual residence being his or her culture. For example, an Asian college student may define his/her culture as aligning with eastern, collectivist values, even if s/he lives in a place where western, individualistic values are dominant. Based on the culture, the microsystem may be constructed differently and the mesosystem may have differing interactions. For example, collectivistic communities encourage the child to live with parents as long as possible, whereas individualistic communities encourage children to be independent as soon as possible. With the differing contextual expectations and norms, children in different cultures/subcultures will develop differently.

In regards to stigma, the norms held by a culture vary significantly. In the United States, there are many diverse cultures that have differing expectations, norms and beliefs from each other. For example, Asian communities may emphasize more communal help for problems, such as the nuclear or extended family, whereas White communities may be more open to seeking professional help. Therefore, stigma of seeking help may be of greater concern for individuals of a certain culture over another culture. This aligns with public stigma, which is an individual's perception of what the larger population (culture) thinks of someone who seeks help. Therefore, public stigma will vary for each person based on the macrosystem, especially the social norms that are part of his/her culture. For example, if Asian individuals believe their society is less tolerant of a person seeking professional help, they may endorse higher levels of public stigma. On the other hand, White individuals may believe their society is more tolerant of a person seeking professional help and may endorse less public stigma.

#### Empirical research

The empirical research examining help-seeking intentions and multiple levels of stigma is sparse. Only one study was identified (Choi & Miller, 2014); two additional studies did not

measure help-seeking intentions but did examine multiple levels of stigma (Ludwikowski et al., 2009, Vogel et al., 2009b). While none of these studies have used ecological systems theory as a framework, the multiple levels of stigma correspond to the multiple levels of an ecological system; public stigma is representative of the macrosystem, whereas stigma of close others is representative of the mesosystem. Based on ecological systems theory, the hypothesis would be that both public stigma and stigma of close others would relate significantly to self-stigma. In addition, the hypothesis would be that stigma of close others, which is a mesosystem variable and more proximal to the self, would relate more strongly to self-stigma than public stigma, which is a macrosystem variable and more distal to the self. Results of these three empirical studies, detailed below, have supported that both public stigma and stigma of close others relate to self-stigma. However, these studies have also shown that the relation between public stigma and self-stigma is stronger than the relation between stigma of close others and self-stigma. In reviewing these studies, the author will explore the reasoning for these varying results and how that informs the nature of the current study. An important note is that public stigma, self-stigma and stigma of close others are self-report measures. The participant is sharing his/her perception of what society and close others think of those who seek help rather than the actual reality. Bronfenbrenner (1979) argues that the perception a person has of how others view or see things is more important in influencing him/her than the actual reality. Therefore, close others' actual report of their stigma of seeking help is not as valuable as the student's perception of his/her close others' stigma of seeking help. In the studies mentioned below, the stigma of close others was measured not as an actual report but a perception of the participants.

In the only study that measured help-seeking intentions, Choi and Miller (2014) examined a myriad of variables and their relations to each other in four different path models for

Asian/Asian Americans. In each of these models, they hypothesized different direct and indirect relations between public stigma, self-stigma, stigma of close others, help-seeking attitudes, and help-seeking intentions. After determining the best model fit, the researchers analyzed the strength of these relations and found that the relation between public stigma and self-stigma was stronger ( $\beta = .63, p < .05$ ) than the relation between stigma by close others and self-stigma ( $\beta = .20, p < .05$ ).

Ludwikowski et al. (2009) inspected how self-stigma mediated the relation between public stigma and help-seeking attitudes and personal stigma (stigma of close others) and help-seeking attitudes. Results indicated that self-stigma significantly mediated the relation of public stigma and help-seeking attitudes ( $\beta = .63, p < .05$ ) and the relation of personal stigma and help-seeking attitudes ( $\beta = .25, p < .05$ ). The author concluded that “public stigma as a whole was more strongly associated with self-stigma than was personal stigma” (p. 414).

Vogel et al. (2009b) hypothesized that “a person may be affected more by stigmatization among those he or she interacts with than by that which exists in the general population” (p. 301). They investigated if stigma of close others would account for unique variance in self-stigma after controlling for public stigma via a hierarchical regression. In the first step, public stigma accounted for a significant variance in self-stigma [ $F(1, 125) = 45.4, p < .001, R = .52, R^2 = .27$ ]. In the second step, stigma of close others accounted for significant variance in self-stigma after controlling for public stigma [ $F(2, 124) = 30.0, p < .001, R = .57, R^2 = .33$ ]. The  $R^2$  change from step one to step two was significant ( $\Delta R^2 = .05, p < .001$ ). In examining the strength of the relations, the relation of public stigma and self-stigma ( $\beta = .44, p < .001$ ) was stronger than the relation of stigma of close others and self-stigma ( $\beta = .26, p < .001$ ).

Ludwikowski et al. (2009) provided a reasonable explanation for the outcomes of the aforementioned studies, that the relation of public stigma and self-stigma was stronger than the relation of stigma of close others and self-stigma. The researchers concluded that “individuals [may be] more likely to experience both positive and negative messages from close others, [whereas] public stigma may be more pervasive and represent clearer negative messages” (Ludwikowski et al., 2009, p. 414). Therefore, the strength of the relation between stigma of close others and self-stigma may be stronger if the researchers only measured the variable (stigma of close others) by using one entity, such as only parents or best friend.

Referring to ecological systems theory, the explanation provided by Ludwikowski et al. (2009) aligns well with how the mesosystem is perceived. As explained above, the mesosystem is the interaction of microsystems and thus combines the beliefs of many close others. If those beliefs are similar, the individual has a consistent schema, whereas if the beliefs are dissimilar, the individual may have an inconsistent schema. In relation to stigma, the individual may receive multiple positive and negative messages from close others and therefore, s/he may form an inconsistent schema resulting in a weaker relation between stigma of close others and self-stigma. However, the message the individual receives about public stigma may be consistently negative and thus from a consistent schema making the relation between public stigma and self-stigma stronger. It is possible that if both schemas for public stigma and stigma of close others were consistent, the relation between stigma of close others and self-stigma would be equivalent to or stronger than the relation between public stigma and self-stigma.

In order to form a consistent schema, the current author proposed that the influence of others should be specific to one entity, such as parents, best friend, sibling, and etc. Therefore, the relation between each microsystem and the child could be examined rather than the

mesosystem and the child. For the current study, the microsystem utilized will be the parents and the author will examine how student-perceived mother stigma and student-perceived father stigma relate directly and indirectly via self-stigma to help-seeking intentions. The author hypothesized that due to only examining one influence, there will be no conflicting messages, and a consistent schema will be represented. Therefore, the relation of student-perceived mother/father stigma and self-stigma may be equivalent or stronger than the relation between public stigma and self-stigma.

### Role of Culture

#### Culture and ecological systems theory

The macrosystem, as described above, comprises the social norms, rules, and laws of a given society or group of people and shapes the interactions among the other levels of the ecological system (Bronfenbrenner, 1979). Therefore, the macrosystem defines the development of the ecological system and emphasizes how it varies by external factors, especially culture. Culture, as defined for this study, is the expectations, beliefs, norms, and laws that are held by a certain group of people and how those characteristics shape the development of an individual and the interactions amongst individuals (Bronfenbrenner, 1979)). For example, Asian, Asian American, and Pacific Islanders (AAPI) report valuing interdependence, compliance to social norms, respect for authority, and humility (Kim, 2007). In general, eastern societies espouse to more collectivistic ideals, whereas western societies espouse to more individualistic ideals (Sue and Sue, 2008). In particular, the role and importance of parents for young adult children seem to be different in collectivistic vs. individualistic cultures. In collectivist cultures, the parents may be considered essential role models and respecting them and adhering to their beliefs may be considered appropriate. In individualistic cultures, the parents may not necessarily be the primary

role models and adhering to their beliefs may not be necessary; if anything, independent beliefs may be encouraged (Sue and Sue, 2008).

Given the notable differences between collectivist and individualist cultures regarding the role of the larger society and close others, the current author explored how cultural differences describe the relations between the variables of interest, namely public stigma, self-stigma, student-perceived mother/father stigma, and help-seeking intentions. In particular, the author was interested in comparing Asian, Asian American, and Caucasian American individuals. The main reasons for comparing these groups were: 1) the contrast in the emphasis of valuing parental beliefs and adhering to social norms, and 2) the dearth of research comparing these two cultural groups on the variables of interest.

#### Empirical research

In order to understand the role of culture on the relations between public stigma, self-stigma, stigma of close others, and help-seeking intentions, the current author examined all types of help-seeking (attitudes, intentions, and behavior). Focusing only on help-seeking intentions yielded few results and did not highlight the complexity of culture on the relations between the variables of interest. The author will make explicit what studies in the section below are focusing on help-seeking attitudes and/or behaviors rather than help-seeking intentions. Student-perceived mother/father stigma is a new variable created for this investigation that is similar to stigma of close others. Therefore, the empirical research will focus on the relations between stigma of close others and other variables of interest.

Help-seeking intentions. There were no studies found that reviewed the differences between Asians, Asian Americans and Caucasian Americans on help-seeking intentions. Therefore, the author examined other help-seeking measures that are proximal to help-seeking

intentions, namely help-seeking attitudes and help-seeking behavior. In regard to help-seeking behavior, Lin, Inui, Kleinman, and Womack (1982) reported Asian Americans (1,553 days) delayed seeking treatment at a significantly greater rate than Caucasian Americans (607.4 days). Matsuoka, Breaux, and Ryujin (1997) found Asian Americans utilized mental health services at one-third the rate of their Caucasian American counterparts. In regard to help-seeking attitudes, Brinson and Kottler's (1995) qualitative study of minority students versus majority students concluded that Asian American college students compared to Caucasian American students endorsed less positive attitudes towards counseling. Masuada, Suzumura, Beauchamp, Howells, and Clay (2005) found that Japanese college students compared to their Caucasian American counterparts reported significantly less openness to seeking counseling or discussing their personal concerns ( $\beta = .33, p < .001$ ). The reason for these differences, as explained by these studies, was the various forms of stigma, namely public stigma and self-stigma; Asians compared to their Caucasian American counterparts had greater levels of stigma.

Public stigma and self-stigma. Based on Modified Labeling Theory (MLT), the negative perspectives that others have towards those seeking help (public stigma) is internalized by the individual (self-stigma). If there is more negative perspectives held by a society, this may result in more internalization of a negative message (higher levels of self-stigma). Sue and Sue (2008) stated that a negative perspective was held by all societies towards seeking help. Therefore, all individuals, regardless of culture, should have a similar relation between public stigma and self-stigma. In studies that examined predominately a Caucasian American sample, individuals who reported greater levels of public stigma reported greater levels of self-stigma (e.g.,  $\beta = .63, p < .001$ , Ludwikowski et al., 2009;  $r = .25, p < .001$ , Vogel et al., 2007;  $r = .46, p < .001$ , Vogel et al., 2006). Similarly, studies that focused solely on Asian and Asian Americans found

individuals who reported greater levels of public stigma reported greater levels of self-stigma (e.g.,  $r = .57$ ,  $p < .001$ , Choi & Miller, 2014).

No studies were found that compared these two populations on this relation. However, comparison studies did examine if there were significant differences in level of public stigma between the two groups. None of these studies examined help-seeking intentions as the outcome variable; therefore, the outcome variable of help-seeking attitudes was examined. Loya, Reddy, and Hinshaw (2010) concluded that South Asian students compared to Caucasian American students had significantly higher levels of public stigma [ $t(126) = 2.02$ ;  $p < .05$ ]. Pedersen and Paves (2014) compared Asian students against all other ethnicities and found there to be no significant difference in public stigma ( $\beta = .22$ ,  $p > .05$ ). Similarly, Caucasian American students were compared against all other ethnicities and no significant difference was found in public stigma ( $\beta = .18$ ,  $p > .05$ ). Overall, the studies, which are few, show mixed findings as to whether culture yields differential levels in public stigma. Moreover, potential mean differences in self-stigma across cultures have not been examined.

Self-stigma and help-seeking intentions. Wynaden and colleagues (2005) reported Asian communities endorsed fears about being shamed and losing face if they sought help. One participant in this study stated “for Chinese people shame is a very deep meaning, it means that you can’t go out and face other people” and another participant mentioned “if someone has a mental illness it is a failure” (Wynaden et al., 2005, p. 90-91). In Caucasian American societies, the emphasis has been on reduced self-esteem and maladaptive affect (e.g., depression) or behavior (e.g., delay treatment) (Brinson & Kottler, 1995; Vogel et al., 2007).

In studies that examined predominately Caucasian American samples, individuals who reported greater levels of self-stigma were less willing to seek help from a physician or

psychologist (e.g.,  $OR: 1.87, p < .001$ , Barney et al., 2005;  $r = -.37, p < .001$ , Vogel et al., 2007;  $r = -.34, p < .001$ , Vogel et al., 2006) and had less positive attitudes towards seeking help from a physician or psychologist (e.g.,  $r = -.63, p < .001$ , Nam et al., 2013;  $r = -.65, p < .001$ , Vogel et al., 2007;  $r = -.53, p < .001$ , Vogel et al., 2006). Similarly, studies that focused solely on Asians and Asian Americans found individuals who reported greater levels of self-stigma were less likely to seek counseling (e.g.,  $r = -.28, p < .01$ , Choi & Miller, 2014; Wynaden et al., 2005) and had less positive attitudes towards seeking counseling (e.g.,  $r = -.56, p < .01$ , Choi & Miller, 2014). There were no studies found that compared these groups on the relation between self-stigma and help-seeking intentions (or other forms of help-seeking).

**Stigma of close others and self-stigma.** Vogel et al. (2009b) theorized that individuals may feel greater levels of stigmatization by those close to them in comparison to the larger public. If an individual's support group has positive views towards seeking help, the individual may be more willing to seek help and have less self-stigma and vice versa if the individual's support group has negative views. Based on ecological systems theory, close influences (e.g., parents) have a greater impact on the individual's beliefs than more distal influences (e.g., societal laws). In considering culture, collectivist cultures may place greater emphasis on adhering and valuing the beliefs of close others compared to individualistic cultures because having differing beliefs from close others is more acceptable in the latter cultures (Brinson & Kottler, 1995; Sue and Sue, 2008).

In studies that examined predominately a Caucasian American sample, individuals who reported greater levels of stigma by close others reported greater levels of self-stigma ( $\beta = .22, p < .001$ , Ludwikowski et al., 2009;  $r = .37, p < .001$ , Vogel et al., 2009b). Similarly, studies that focused solely on Asian and Asian Americans found individuals who reported greater levels of

stigma by close others reported greater levels of self-stigma (e.g.,  $r = .34, p < .05$ , Cheng, Kwan, & Sevig, 2013;  $r = .42, p < .01$ , Choi and Miller, 2014).

There were no studies found that compared these two groups on the relation between stigma of close others and self-stigma. From an ecological systems theory perspective, the microsystem is the most proximal influence for the young adult, and the strongest influence within the microsystem is the parents, especially the mother. The importance given to parents as role models may be different in collectivist vs. individualist cultures (Sue and Sue, 2008). In collectivist cultures, the parents may be revered and children may be taught to adhere to parents' beliefs strictly. In individualist cultures, the parents may be respected, but adherence to their beliefs may not be necessary (Sue and Sue, 2008). Based on Modified Labeling Theory (MLT), a child may decide if he or she accepts the label of being flawed for seeking help that is placed on him or her by others. Asian and Asian American individuals, given the cultural norms of having similar beliefs to parents, may accept the label more readily than Caucasian American students, who may not adhere to that cultural norm.

Stigma of close others and help-seeking intentions. The relation of stigma of close others and help-seeking intentions may be stronger than the relation of public stigma and help-seeking intentions, because close others are more proximal influencers than the general population. In regard to culture, collectivistic cultures may adhere to the beliefs of close others more strongly than individualistic cultures (Sue and Sue, 2008). The reason for this difference is that of interdependence and independence. Independent cultures value children having similar or differing beliefs and acting of their own accord. Interdependent cultures value children having similar beliefs to parents and acting in accord to family expectations (Sue and Sue, 2008).

For example, an Asian student may adhere to his/her parents' belief that seeking help is a sign of weakness and also not seek help. A Caucasian American student may adhere to his/her parents' beliefs that seeking help is flawed, but may still seek help.

In studies that examined predominately a Caucasian American sample, individuals who reported greater levels of stigma of close others had less positive attitudes towards seeking counseling ( $r = -.40 \text{ -- } .48, p < .001$ , Ludwikowski et al., 2009). Studies that focused solely on Asian and Asian Americans found mixed results. Authors of two studies reported that Asian and Asian American students who reported greater levels of stigma of close others had greater treatment delay ( $r = .40, p < .01$ , Okazaki, 2000) and less positive attitudes toward seeking counseling ( $r = -.27, p < .05$ , Choi & Miller, 2014), while authors from two other studies reported a nominal relation between stigma of close others and willingness to seek counseling ( $r = .12, p < .05$ , Yakunina & Weigold, 2011) and stigma of close others and intentions to seek counseling ( $r = .12, p > .05$ , Choi and Miller, 2014). The difference in significance is probably due to statistical power. One difference in these studies is the definition of an Asian sample. Yakunina and Weigold (2011) sampled only Asian international students, whereas Choi and Miller (2014) sampled Asian, Asian American and Pacific Islander (AAPI) students. Asian international students may have close others that are of a similar background (e.g. other Asian international students) who provide one consistent message about seeking help, while Asian American and Pacific Islanders students may have close others of multiple backgrounds (e.g., Caucasian and Asian) who provide contradictory messages about seeking help. Ludwikowski et al. (2009) explained that contradictory messages from close others (positive and negative views of seeking help) might result in weaker or non-significant relations compared to consistent messages from close others (only positive or only negative views of seeking help).



There were no studies found that compared these groups on the relation between stigma of close others and help-seeking intentions (or others forms of help-seeking). From an ecological theory perspective, the microsystem influences the child significantly given that it is the most proximal influence. Parents are part of the microsystem and the importance given to them as role models is different in collectivist vs. individualist cultures. In collectivist cultures, the parents are revered and children enact behaviors consistent with their parents' perspectives. In individualist cultures, the parents are respected, but children may enact behaviors not consistent with their parents' perspectives (Sue and Sue, 2008). Therefore, an Asian and Asian American individual may be less willing to seek help if his parents are against seeking help compared to a Caucasian American individual whose parents are against seeking help.

#### Purpose and Hypotheses

The purpose of this study is twofold. First, the study will investigate the role of mother and father, separately, on students' self-stigma and help-seeking intentions by supplementing student-perceived mother/father stigma as an independent variable into Vogel et al.'s (2007) model. Second, the study will evaluate if this model differs based on culture, especially if the relations between student-perceived mother/father stigma and self-stigma and student-perceived mother/father stigma and help-seeking intentions will be stronger for Asian and Asian American populations compared to a Caucasian American population.

Hypothesis 1. Vogel et al.'s (2007) fully mediated model (Figure 2) would be a good fit for the Asian and Asian American college population.

Hypothesis 2. The expanded model (Figure 5), with student-perceived mother stigma and student-perceived father stigma as independent variables, would be a better fit for Asian, Asian

American, and Caucasian American college students compared to Vogel et al.'s (2007) model (Figure 1).

Hypothesis 3. The relations between variables (path d, e, f and g) for the expanded model (Figure 5) would be stronger for Asian and Asian American college students compared to their Caucasian American counterparts.

## CHAPTER 3. METHOD

### Design

The current study was a descriptive, correlational design that inspected the relations amongst stigma and help-seeking for Asians, Asian Americans, and Caucasian Americans. The criterion variable was intentions to seek help. The predictor variables were public stigma, student-perceived mother stigma, and student-perceived father stigma. Self-stigma was examined as a mediator.

### Participants

For this study, the author targeted three samples, Asian, Asian American, and Caucasian American students. Participants were recruited by requesting from the registrar's office a list for a sample of Asian, Asian American, and Caucasian American students (undergraduate and graduate) that represented all class levels and ages. For sufficient power in a path analysis, the recommended sample size varies from 20 per observed variable (Mueller, 1997) to at least 200 overall (Chou and Bentler, 1995). The aim of this study was for 200 per group (600 total) with the understanding that an acceptable sample size per group would range from 100 (five observed variables) to 200. The participation rate was approximately 10% of all eligible participants that were emailed to volunteer to participate in the study. The original sample of participants who completed the survey was comprised of 993 participants. Using an 80% cutoff rule for the 45 items of the survey, participants who missed nine or more items were removed from the dataset; 189 participants were removed. In addition, all 45 items were examined to see if more than 20% of the sample did not answer a particular item; none of the items met this criterion. After accounting for missing data, the overall sample was comprised of 804 participants, 428 women and 373 men; therefore the participation rate of those who chose to complete the survey was 81%.

Three participants did not report gender. The average age was 22.6 years ( $SD = 4.40$ ). 8 participants did not indicate age. The sample consisted of 17% freshmen, 14.2% sophomores, 16.2% juniors, 16.4% seniors, 31.6% graduate students and 1.4% other. 1 participant did not report year in school. The sample was approximately 38.5% Asian, 19.3% Asian American, and 39.2% Caucasian. 31.5% of participants had sought prior counseling. Please refer to Table 1 for the specific demographics for the whole sample as well as each ethnic group.

### Measures

Translation of measures.

The SSRPH, SSOSH, PSOSH, ATSPPHS, and ISCI were translated from English into Chinese versions using procedures established in psychological research (Brislin, 1980; Cull et al., 2002). Chinese versions of the SSRPH, SSOSH, ATSPPHS and ISCI had already been used in stigma research (i.e., Vogel et al., 2013). For the PSOSH, a bilingual psychologist translated it from English into Chinese. Then, a bilingual doctoral psychology student from Mainland China back-translated the PSOSH from Chinese into English. Finally, the back-translated English version was sent to the first colleague who verified it was equivalent to the original English version.

Demographics.

Participants completed a demographic questionnaire that requested age, gender, ethnicity, identity of primary guardians, citizenship status, generational status, school year, and if they had sought prior counseling. Please refer to Appendix A for the full questionnaire.

Public stigma.

The Stigma Scale for Receiving Psychological Help (SSRPH; Komiya et al., 2000) assessed the amount of perceived stigma an individual has about someone who receives

counseling. The scale had five items and was measured using a four-point Likert scale from zero representing “strongly disagree” to three representing “strongly agree.” In order to keep consistent with other scales, the current study adapted the four-point Likert scale to be from one representing “strongly disagree” to four representing “strongly agree.” An example item included “People tend to like less those who are receiving professional psychological help.” The SSRPH total score was the addition of the five items of the measure with higher scores demonstrating greater public stigma. Komiya et al. (2000) reported an internal consistency of  $\alpha = .72$  and established construct validity by finding a negative relation between the SSRPH and the ATSPPH ( $r = -.40, p < .0001$ ), which corresponded with the literature that more stigma related to less positive attitudes toward help-seeking. This measure has been used extensively in the literature to assess public stigma (e.g., Nam et al., 2013; Vogel et al., 2005; Vogel et al. 2013). For the present study, internal consistency for the English version was  $\alpha = .76$  and for the Chinese version was  $\alpha = .82$ . The SSRPH and the ATSSPHS correlated negatively ( $r = -.26, p < .01$ ), for both the English and Chinese version to establish convergent validity. Internal consistency was  $\alpha = .74$ ,  $\alpha = .80$ , and  $\alpha = .79$  for Caucasian Americans, Asian Americans, and Asians, respectively. Please refer to Appendix B and Appendix C for the complete measures. Self-stigma.

The Self-stigma of Seeking Help scale (SSOSH; Vogel et al., 2006) measured the perception of stigma an individual has of himself or herself for receiving counseling. The scale had 10 items and was measured using a five-point Likert scale from one representing “strongly disagree” to five representing “strongly agree.” An example item included “If I went to a therapist, I would be less satisfied with myself.” The SSOSH total score was the summation of all 10 items with higher scores indicating greater self-stigma. Vogel et al. (2006) reported an

internal consistency of  $\alpha = .91$  and a two-month test-retest reliability of  $\alpha = .72$ . The SSOSH was positively correlated with the SSRPH ( $r = .48, p < .001$ ) and negatively correlated with the ATSSPHS ( $r = -.63, p < .001$ ) to establish convergent validity (Vogel et al., 2006). This matched the literature that demonstrated that self-stigma was positively related to public stigma and negatively related to help-seeking attitudes. This measure has been used widely by many studies focusing on self-stigma (e.g., Cheng et al., 2013; Vogel et al., 2013). For the current study, internal consistency for the English version was  $\alpha = .85$  and for the Chinese version was  $\alpha = .75$ . The SSOSH correlated positively with the SSRPH (English:  $r = .38, p < .01$ ; Chinese:  $r = .56, p < .01$ ) and negatively with the ATSSPHS (English:  $r = -.60, p < .01$ ; Chinese:  $r = -.43, p < .01$ ) for both the English and Chinese version to establish convergent validity. Internal consistency was  $\alpha = .89$ ,  $\alpha = .83$ , and  $\alpha = .78$  for Caucasian Americans, Asian Americans, and Asians, respectively. Please refer to Appendix D and Appendix E for the full measures.

Student-perceived mother stigma.

The Perceptions of Stigmatization by Others for Seeking Help (PSOSH) was adapted by the current author to “address the perception of stigma present in a person’s direct social group,” (Vogel et al., 2009b, p. 301) in particular his/her mother. The PSOSH was comprised of five items and was measured using a five-point Likert scale from one representing “not at all” to five representing “a great deal.” An example item included “Think of you in a less favorable way.” The PSOSH total score was the summation of all 10 items with higher scores indicating greater presence of stigma in the social network. In order to focus solely on mother, the current author revised the instructions to say “mother” rather than “people you interact with.” Vogel et al., (2009b) reported an internal consistency of  $\alpha = .84$  and a three-week test-retest reliability of  $\alpha = .77$ . The PSOSH was



positively correlated with the SSRPH ( $r = .31, p < .001$ ), SSOSH ( $r = .37, p < .001$ ) and negatively correlated with the ATSPPHS ( $r = -.66, p < .001$ ) to establish convergent validity (Vogel et al., 2009b). All participants were asked to fill out this measure for mother. If participants indicated being raised by a female guardian, they filled out the measure considering the guardian as “mother”. The internal consistency for the English version of the mother PSOSH was  $\alpha = .90$  and for the Chinese version was  $\alpha = .87$ . The mother PSOSH correlated positively with the SSRPH (English:  $r = .33, p < .01$ ; Chinese:  $r = .50, p < .01$ ), the SSOSH (English:  $r = .21, p < .01$ ; Chinese:  $r = .32, p < .01$ ), and negatively with the ATSPPHS (English:  $r = -.14, p < .01$ ; Chinese:  $r = -.22, p < .01$ ) to establish convergent validity for both the English and Chinese version. Internal consistency was  $\alpha = .89$ ,  $\alpha = .91$ , and  $\alpha = .88$  for Caucasian Americans, Asian Americans, and Asians, respectively. Please refer to Appendix F and Appendix G for the complete measures.

Student-perceived father stigma.

The Perceptions of Stigmatization by Others for Seeking Help (PSOSH) was adapted by the current author to “address the perception of stigma present in a person’s direct social group,” (Vogel et al., 2009b, p. 301) in particular his/her father. The PSOSH was comprised of five items and was measured using a five-point Likert scale from one representing “not at all” to five representing “a great deal.” An example item included “Think of you in a less favorable way.” The PSOSH total score was the summation of all 10 items with higher scores indicating greater presence of stigma in the social network. In order to focus solely on father, the current author revised the instructions to say “father” rather than “people you interact with.” Vogel et al., (2009b) reported an internal consistency of  $\alpha = .84$  and a three-week test-retest reliability of  $\alpha = .77$ . The PSOSH was positively correlated with the SSRPH ( $r = .31, p < .001$ ), SSOSH ( $r = .37,$

$p < .001$ ) and negatively correlated with the ATSPPHS ( $r = -.66, p < .001$ ) to establish construct validity (Vogel et al., 2009b). All participants were asked to fill out this measure for father. If participants indicate being raised by a male guardian, they filled out the measure considering the guardians as “father”. The internal consistency for the English version of the father PSOSH was  $\alpha = .93$  and for the Chinese version was  $\alpha = .89$ . The father PSOSH correlated positively with the SSRPH (English:  $r = .37, p < .01$ ; Chinese:  $r = .47, p < .01$ ), the SSOSH (English:  $r = .24, p < .01$ ; Chinese:  $r = .30, p < .01$ ), and negatively with the ATSPPHS (English:  $r = -.10, p < .01$ ; Chinese:  $r = -.24, p < .01$ ) to establish convergent validity for both the English and Chinese version. Internal consistency was  $\alpha = .94$ ,  $\alpha = .94$ , and  $\alpha = .91$  for Caucasian Americans, Asian Americans, and Asians, respectively. Please refer to Appendix H and Appendix I for the full measures.

Intentions to seek help.

The Intentions of Seeking Counseling Inventory (ISCI; Cash et al., 1975) measured the likelihood of an individual to seek help for a set of concerns, ones that are typically discussed in counseling by college students (Cepeda-Benito & Short, 1998). Cepeda-Benito and Short (1998) conducted a factor analysis on the items and found three distinctive subscales. Only the Psychological and Interpersonal Concerns (10 items) subscale was utilized; an example item was “relationship difficulties”. The ISCI was measured on a six-point Likert scale from one representing “very unlikely” to six representing “very likely” and the total score was the summation of all 10 items with higher scores indicating greater likelihood to seek help. Internal consistency was  $\alpha = .90$  (Cepeda-Benito & Short, 1998). The ISCI was negatively correlated with the SSOSH ( $r = -.37, p < .001$ ), and positively correlated with the ATSPPHS ( $r = .50, p < .001$ ) to establish construct validity (Vogel et al., 2006). In addition, Kelly and Achter (1995)



reported a positive correlation between the ISCI and the ATSPPHS( $r = .36, p < .05$ ). This matched the literature that demonstrated that help-seeking intentions were negatively related to self-stigma and positively related to help-seeking attitudes. This measure has been used widely by many studies focusing on help-seeking intentions (e.g., Dean & Chamberlin, 1994; Vogel et al., 2009b). Internal consistency for the English version of the present study was  $\alpha = .87$  and for the Chinese version was  $\alpha = .85$ . The ISCI correlated positively with the ATSPPHS (English:  $r = .44, p < .01$ ; Chinese:  $r = .30, p < .01$ ) to establish convergent validity for both the English and Chinese version. Internal consistency was  $\alpha = .87$ ,  $\alpha = .87$ , and  $\alpha = .90$  for Caucasian Americans, Asian Americans, and Asians, respectively. Please refer to Appendix J and Appendix K for the full measures.

#### Procedure

The initial step was to obtain Institutional Review Board (IRB ID: 16-320, Approval Date: 10/28/26; see Appendix O) approval of the study, so all guidelines were met for ethical conduct of research. In addition, the approval by IRB assured that sound research practices were being upheld as specified by the American Psychological Association (APA). Data was gathered in the fall semester of 2016 and spring semester of 2017 via an online survey created by using Qualtrics. Emails with the link were sent to potential participants (see Appendix L) and reminder emails (see Appendix M) were sent to increase participation.

The second step was for emails to be sent to potential participants with the links for the Qualtrics survey in both the English and Chinese version. It was up to participants to decide which version they took. Once students clicked on the link, they were presented with an Informed Consent (See Appendix N) that described their rights as participants as well as the purpose of the study. Once individuals gave consent, they were directed to the demographics



questions that asked about age, gender, ethnicity, school year, identity of primary guardians, and if they had sought prior counseling. The demographic questions were in English for both versions of the survey. Next, individuals completed the SSRPH, the SSOSH, the PSOSH, the ATSPPHS, and the ISCI in English if they completed the English version of the survey or Chinese if the completed the Chinese version of the survey. Finally, the participants were given the opportunity to participate in a drawing for a gift card of \$15, debriefed about the study, acknowledged for their involvement and provided the contact of the primary investigator and study supervisor in case of any inquiries or concerns. The drawing, debriefing, acknowledgment, and contact information was provided in English for both versions of the survey.

## CHAPTER 4. RESULTS

### Preliminary Analysis for Gender.

Mean differences for whole sample.

The criterion variable was intentions to seek help, whereas the predictor variables were public stigma, self-stigma, student-perceived mother stigma, and student-perceived father stigma. Means, standard deviations, and correlations for the examined variables are presented in Table 2a for whole sample and Table 2b for the whole sample by sex. Independent sample *t*-tests were conducted to inspect if means of criterion and predictor variables were significantly different between men and women. Result indicated that there were significant mean differences in public stigma and intentions to seek help, but not in self-stigma, student-perceived mother stigma, and student-perceived father stigma ( $p > .05$ ). Men reported greater levels of public stigma than women,  $t = 3.02, p < .01$  with a Cohen's  $d = .21$ . Women reported greater intentions to seek help than men,  $t = -2.27, p < .05$  with a Cohen's  $d = .16$ . While there is a significant mean difference between the genders on public stigma and intentions to seek help, the effect size is nominal.

Mean differences for Caucasian Americans, Asian Americans and Asians.

Independent sample *t*-tests were performed to examine if means of criterion and predictor variables were significantly different between men and women for the three groups. Means, standard deviations, and correlations for examined variables are presented in Table 3a for the Caucasian sample and Table 3b for the Caucasian sample by sex. Results indicated that there were significant mean differences in intentions to seek help, but not in public stigma, self-stigma, student-perceived mother stigma, and student-perceived father stigma ( $p > .05$ ). Women reported greater intentions to seek help than men,  $t = -2.14, p < .05$  with a Cohen's  $d = .23$ . Means, standard deviations and correlations for variables examined are presented in Table 4a for

the Asian American sample and Table 4b for the Asian American sample by sex. Results indicated that there were significant mean differences in intentions to seek help, but not in public stigma, self-stigma, student-perceived mother stigma, and student-perceived father stigma ( $ps > .05$ ). Women reported greater intentions to seek help than men,  $t = -2.05, p < .05$  with a Cohen's  $d = .23$ . Means, standard deviations and correlations for examined variables are presented in Table 5a for the Asian sample and Table 5b for the Asian sample by sex. Results indicated that there were significant mean differences in public stigma and intentions to seek help, but not in self-stigma, student-perceived mother stigma, and student-perceived father stigma ( $ps > .05$ ). Men reported greater public stigma than women,  $t = 3.69, p < .001$  with a Cohen's  $d = .41$ . Women reported greater intentions to seek help than men,  $t = -2.15, p < .05$  with a Cohen's  $d = .24$ .

Correlational sex differences for whole sample and by ethnic group.

Fisher  $r$  to  $z$  transformation,  $z$  scores were computed to determine if the Pearson product moment correlations by sex were significantly different for the whole group as well as each ethnic group. There were no significant correlation differences between males and females on the variables of interest for the whole sample or by ethnic group.

Conclusion.

Overall, there were significant mean differences among men and women in public stigma and intentions to seek help across the different ethnic groups. However, the effect sizes associated with these differences were small. In addition, there were no correlational differences between women and men across the ethnic groups. Therefore, gender differences will not be examined in the main analyses.

### Preliminary Analysis for Ethnicity.

Mean differences between ethnic groups.

The criterion variable was intentions to seek help. The predictor variables were public stigma, self-stigma, student-perceived mother stigma, and student-perceived father stigma. A one-way analysis of variance (ANOVA), with a Bonferroni correction of  $p < .002$  given the number of comparisons, was performed to see if there were mean differences on the examined variables for the three ethnic groups: Caucasian Americans, Asian Americans, and Asians. Results indicated significant mean differences in self-stigma, student-perceived mother stigma, student-perceived father stigma, and intentions to seek help; only public stigma did not differ among the groups. In examining post hoc analysis of comparisons, Asians reported less self-stigma than Caucasian Americans,  $t = 3.96, p < .001$  with a Cohen's  $d = .31$  and Asian Americans,  $t = 2.81, p < .05$  with a Cohen's  $d = .30$ . Caucasian Americans and Asian Americans did not significantly differ ( $p > .05$ ). As for student-perceived mother stigma, Asian Americans and Asians did not significantly differ ( $p > .05$ ). However, Asians and Asian Americans compared to their Caucasian counterparts reported greater student-perceived mother stigma,  $t = 5.91, p < .001$  with a Cohen's  $d = .50$  and  $t = 5.48, p < .001$  with a Cohen's  $d = .52$ , respectively. As for student-perceived father stigma, Asian Americans and Asians did not differ significantly ( $p > .05$ ). However, Asians and Asian Americans compared to their Caucasian counterparts reported greater student-perceived father stigma,  $t = 3.65, p < .01$  with a Cohen's  $d = .32$  and  $t = 3.47, p < .01$  with a Cohen's  $d = .30$ , respectively. Last, intentions to seek help was not significantly different between Caucasian Americans and Asian Americans ( $p > .05$ ). However, Asians reported more intentions to seek help than Caucasian Americans,  $t = 7.76, p < .001$  with a Cohen's  $d = .60$  and Asian Americans,  $t = 5.37, p < .001$  with a Cohen's  $d = .49$ .

Strength of correlations for whole sample.

Only the correlations of moderate and strong strength are presented. Moderate correlations were public stigma and self-stigma ( $r = .39, p < .01$ ), public stigma and student-perceived mother stigma ( $r = .33, p < .01$ ), and public stigma and student-perceived father stigma ( $r = .36, p < .01$ ). The only strong correlation was student-perceived mother stigma and student-perceived father stigma ( $r = .74, p < .01$ ).

#### Main Analyses.

Vogel's stigma model.

The present study conducted a path analysis to examine Vogel et al.'s (2007) fully saturated stigma model (Figure 1). Given that a fully saturated model would result in a perfect fit, the path coefficients were examined to determine the significance of the relations amongst variables. In particular, the bootstrapping method (Shrout & Bolger, 2002) was utilized to determine if the indirect effects were statistically significant. The indirect effects were considered statistically significant if the 95% confidence intervals obtained by the bootstrap did not contain zero.

A fully mediated stigma model was then examined as shown in Figure 2. Fit indices were examined and bootstrapping was conducted to determine if the fully mediated model fit the data as well as the saturated model. Three fit indices, namely the root-mean-square error of approximation (RMSEA; Sigler, 1989), the standardized root-mean-square residual (SRMR; Bentler, 1995), and the comparative fit index (CFI; Bentler, 1989) were used to determine goodness of fit. Cutoffs presented by Hu and Bentler (1999) were utilized to ascertain goodness of fit; the cutoffs were a RMSEA lower than or equal to .06, a SRMR lower than or equal to .08,

and a CFI higher than or equal to .95. Using the parsimony principle, the fully mediated model would be selected if it was not significantly different from the saturated model.

Please refer to Figure 1 for the fully saturated model and Figure 2 for the fully mediated model. Please refer to Figure 3 (fully saturated model) and Figure 4 (fully mediated model) for the standardized betas of the direct and indirect effects of the relation between public stigma and intentions to seek help as mediated by self-stigma for all three ethnic groups. Please refer to Table 6 for chi-square and goodness of fit measures. Please refer to Table 7 for the magnitude and statistical significance of the indirect effects of public stigma on intentions to seek help through self-stigma for all three ethnic groups.

Caucasian Americans. Vogel et al.'s (2007) fully saturated stigma model was a perfect fit for the Caucasian American sample. Bootstrapping allowed for examining the path coefficients of the direct and indirect paths to determine which paths were or were not significant. The direct effect of public stigma on intentions to seek help was not significant, as the 95% confidence interval included 0. The direct effects of public stigma on self-stigma, self-stigma on intentions to seek help, and the indirect effect of public stigma on intentions to seek help through self-stigma were significant, as the 95% confidence intervals did not include 0.

Given that the direct effect of public stigma on intentions to seek help was non-significant, a fully mediated model was tested with that path removed. The fully mediated model was a good fit for the Caucasian American sample ( $\text{Chi-Square} = 0.63, p > .05$ ;  $\text{RMSEA} = 0.00$ ,  $\text{SRMR} = 0.12$ ,  $\text{CFI} = 1.00$ ). Path coefficients were examined for the direct and indirect paths. The direct effects of public stigma on self-stigma and self-stigma on intentions to seek help were significant, as the 95% confidence intervals did not include 0. The indirect effect of public stigma on intentions to seek help through self-stigma was significant, as the 95% confidence

interval did not include 0. Based on the parsimony principle, the fully mediated model was chosen as the best fit for this sample. Please refer to Figure 3, Figure 4, and Table 7 for further information.

Asian Americans. Vogel et al.'s (2007) fully saturated stigma model was a perfect fit for the Asian American sample. Bootstrapping allowed for examining the path coefficients of the direct and indirect paths to determine which paths were or were not significant. The direct effect of public stigma on intentions to seek help was not significant, as the 95% confidence interval included 0. The direct effects of public stigma on self-stigma, self-stigma on intentions to seek help, and the indirect effect of public stigma on intentions to seek help through self-stigma were significant, as the 95% confidence intervals did not include 0.

Given that the direct effect of public stigma on intentions to seek help was non-significant, a fully mediated model was tested with that path removed. The fully mediated model was a good fit for the Asian American sample (Chi-Square = 0.04,  $p > .05$ ; RMSEA = 0.00, SRMR = 0.01, CFI = 1.00). Path coefficients were examined for the direct and indirect paths. The direct effects of public stigma on self-stigma and self-stigma on intentions to seek help were significant, as the 95% confidence intervals did not include 0. The indirect effect of public stigma on intentions to seek help through self-stigma was significant, as the 95% confidence interval did not include 0. Based on the parsimony principle, the fully mediated model was chosen as the best fit for this sample. Please refer to Figure 3, Figure 4, and Table 7 for further information.

Asians. Vogel et al.'s (2007) fully saturated stigma model was a perfect fit for the Asian sample. Bootstrapping allowed for examining the path coefficients of the direct and indirect paths to determine which paths were or were not significant. The direct effect of public stigma

on intentions to seek help, self-stigma on intentions to seek help, and the indirect effect of public stigma on intentions to seek help through self-stigma were not significant, as the 95% confidence intervals included 0. The direct effect of public stigma on self-stigma was significant, as the 95% confidence intervals did not include 0.

Given that the direct effect of public stigma on intentions to seek help was non-significant, a fully mediated model was tested with that path removed. The fully mediated model was a good fit for the Asian sample (Chi-Square = 3.15;  $p > .05$  RMSEA = 0.08, SRMR = 0.03, CFI = 0.95). Path coefficients were examined for the direct and indirect paths. The direct effect of public stigma on self-stigma was significant, as the 95% confidence intervals did not include 0. The direct effect of self-stigma on intentions to seek help and the indirect effect of public stigma on intentions to seek help through self-stigma were non-significant, as the 95% confidence interval included 0.

While the fully saturated and fully mediated models were a good fit, the direct and indirect paths indicated that public stigma and self-stigma were not related to intentions to seek help for Asian individuals. It may be beneficial to see if other types of stigma, such as parental stigma, relate to intentions to seek help for this ethnic group. Please refer to Figure 3, Figure 4, and Table 7 for further information.

Parent stigma model.

Using the statistical software MPlus version 7.2 (Muthén & Muthén, 2012), a path analysis was conducted on the parental stigma model (see Figure 5) to examine if self-stigma was or was not a mediator between public stigma and intentions to seek help, student-perceived mother stigma and intentions to seek help, and student-perceived father stigma and intentions to seek help. First, the  $R^2$  value was examined to see the variance accounted for by the predictor

variables on self-stigma. If the  $R^2$  value for self-stigma was significant ( $p < .05$ ), then the direct effects between the predictor variables and self-stigma were examined for significant betas. Second, the mean indirect effects were examined to see if self-stigma was a mediator. If the betas were significant ( $p < .05$ ) and the confidence intervals did not include 0, then self-stigma was a mediator. If the betas were non-significant ( $p > .05$ ) and the confidence intervals included 0, then self-stigma was not a mediator. Please refer to Figure 6 for the standardized betas of the direct and indirect effects and Table 8 for bootstrap analysis and statistical significance of the indirect effects.

Path analysis for Caucasian Americans. Public stigma, student-perceived mother stigma, and student-perceived father stigma contributed significant variance ( $R^2 = .21, p < .001$ ) to self-stigma. Examination of direct paths indicated that public stigma was positively related to self-stigma ( $b = .51, p < .001$ ), whereas student-perceived mother stigma and student-perceived father stigma were not related (Mother:  $b = .09, p > .05$ ; Father:  $b = .11, p > .05$ ) to self-stigma. Examining the mean indirect effects, self-stigma did mediate the relationship between public stigma and intentions to seek help ( $b = -.18, p < .001$ ). Self-stigma did not mediate the relation between student-perceived mother stigma ( $b = -.03, p > .05$ ) and intentions to seek help nor student-perceived father stigma and intentions to seek help ( $b = -.04, p > .05$ ). See Figure 6 and Table 8 for further details.

Path analysis for Asian Americans. Public stigma, student-perceived mother stigma, and student-perceived father stigma contributed significant variance ( $R^2 = .16, p < .05$ ) to self-stigma. Examination of direct paths indicated that public stigma was positively related to self-stigma ( $b = .41, p < .001$ ), whereas student-perceived mother stigma and student-perceived father stigma were not related (Mother:  $b = -.11, p > .05$ ; Father:  $b = .09, p > .05$ ) to self-stigma. Examining

the mean indirect effects, self-stigma did mediate the relationship between public stigma and intentions to seek help ( $b = -.13, p < .01$ ). Self-stigma did not mediate the relation between student-perceived mother stigma ( $b = .04, p > .05$ ) and intentions to seek help nor student-perceived father stigma and intentions to seek help ( $b = -.03, p > .05$ ). See Figure 6 and Table 8 for further details.

Path analysis for Asians. Public stigma, student-perceived mother stigma, and student-perceived father stigma contributed significant variance ( $R^2 = .17, p < .001$ ) to self-stigma. Examination of direct paths indicated that public stigma was positively related to self-stigma ( $b = .27, p < .001$ ), student-perceived mother stigma was positively related to self-stigma ( $b = .21, p < .001$ ), and student-perceived father stigma was not related to self-stigma ( $b = -.04, p > .05$ ). Examining the mean indirect effects, self-stigma did not mediate the relations between public stigma and intentions to seek help ( $b = -.01, p > .05$ ), student-perceived mother stigma ( $b = -.01, p > .05$ ) and intentions to seek help, nor student-perceived father stigma and intentions to seek help ( $b = .01, p > .05$ ). See Figure 6 and Table 8 for further details.

Invariance testing of parental stigma model.

Invariance of path coefficients between Caucasian Americans, Asian Americans, and Asians was examined using Wald Chi-Square tests. For Wald Chi-Square tests, only two groups can be compared at a time, so three pairings occurred (Caucasian Americans and Asian Americans, Caucasian Americans and Asians, and Asian Americans and Asians).

Caucasian Americans and Asian Americans. Invariance of path coefficients between Caucasian Americans and Asian Americans in the parent stigma model was examined using seven Wald-Chi Square tests for each hypothesized path (see Figure 5). Results indicated invariance for all paths, meaning the strength of these relations did not vary between the two

groups (see Table 9); the third hypothesis was not supported as paths d, e, f, and g were not variant between the two groups.

Caucasian Americans and Asians. Invariance of path coefficients between Caucasian Americans and Asians in the parent stigma model was examined using seven Wald-Chi Square tests for each hypothesized path (see Figure 5). Results indicated that the strength of relations did vary for certain paths, namely intentions to seek help on self-stigma, intentions to seek help on public stigma, and self-stigma on public stigma (see Table 9). For intentions to seek help on self-stigma, Caucasian Americans reported a negative relation, whereas Asians reported a null relationship ( $b = -.35, p < .001$  and  $b = -.04, p > .05$ , respectively). For intentions to seek help on public stigma, Caucasian Americans reported a null relation, whereas Asians reported a negative relation ( $b = .04, p > .05$  and  $b = -.23, p < .05$ , respectively). For self-stigma on public stigma, Caucasian Americans reported a significantly greater positive relation than Asians ( $b = .51, p < .001$  and  $b = .27, p < .001$ , respectively). Hypothesis 3 was not supported as paths d, e, f, and g in Figure 5 did not vary between the two groups.

Asian Americans and Asians. Invariance of path coefficients between Asian Americans and Asians in the parent stigma model was examined using seven Wald-Chi Square tests for each hypothesized path (see Figure 5). Results indicated that the strength of the relation did vary for certain paths, namely intentions to seek help on student-perceived mother stigma, intentions to seek help on self-stigma, and self-stigma on student-perceived mother stigma (see Table 9). For intentions to seek help on student-perceived mother stigma, Asian Americans reported a negative trend, whereas Asians reported a positive trend ( $b = -.10 p > .05$   $b = .18 p > .05$ , respectively). For intentions to seek help on self-stigma, Asian Americans reported a negative relation, whereas Asians reported a null relation ( $b = -.33 p < .001$   $b = -.04 p > .05$ , respectively). For self-stigma

on student-perceived mother stigma, Asian Americans reported a null relation, whereas Asians reported a positive relation ( $b = -.11 p > .05$   $b = .21 p < .001$ , respectively). Hypothesis three was partially supported as path d was variant between the groups, but path e, f, and g were invariant.

*Multicollinearity effects.* Given the opposite directions of intentions to seek help on mother stigma and self-stigma on mother stigma for Asians (positive direction) and Asian Americans (negative direction), the author examined if multicollinearity effects were occurring due to father stigma being included in the model. Multicollinearity effects are possible due to high correlation between mother stigma and father stigma in both the Asian sample ( $r = .81$ ) and the Asian American sample ( $r = .67$ ). Father stigma was removed from the path analysis, and standardized betas were examined. The standardized betas are shown in Figure 7.

The model without student-perceived father stigma presents evidence that multicollinearity effects may have occurred. For Asian Americans, the strength of intentions to seek help on mother stigma decreased from  $\beta = -.13$  to  $-.03, p > .05$ ), whereas for Asians, the strength of intentions to seek help on mother stigma increased from  $\beta = .16$  to  $.20$  and became significant  $p < .05$ ). For Asian Americans, the strength of self-stigma to mother stigma decreased from  $\beta = -.15$  to  $-.07, p > .05$ , and for Asians, the strength of self-stigma to mother stigma decreased from  $\beta = .28$  to  $.23$  but remained significant,  $p < .001$ . Overall, these results indicated that for the Asian American sample, like the Caucasian sample, the relation of mother stigma to self-stigma and the relation of mother stigma to intentions to seek help was null. However, mother stigma, when father stigma is removed from the model, did significantly relate to Asians' self-stigma and intentions to seek help in this sample.

Invariance of path coefficients between Asian Americans and Asians for the parent stigma model, removing student-perceived father stigma, was examined using two Wald-Chi Square tests for hypothesized paths d and e (see Figure 7). Results indicated that the strength of the relation did vary for both paths, namely intentions to seek help on student-perceived mother stigma and self-stigma on student-perceived mother stigma. For intentions to seek help on student-perceived mother stigma, Asian Americans reported a null relation, whereas Asians reported a positive relation ( $\chi^2 = 5.62 p < .05$ ;  $b = -.02 p > .05$   $b = .21 p > .05$ , respectively). For self-stigma on student-perceived mother stigma, Asian Americans reported a null relation, whereas Asians reported a positive relation ( $\chi^2 = 9.44 p < .001$ ;  $b = -.05 p > .05$ ;  $b = .18 p < .001$ , respectively). Hypothesis three was partially supported as paths d and e were variant between the groups, but paths f, and g were invariant.

## CHAPTER 5. DISCUSSION

This discussion highlights the contribution of public stigma, self-stigma, student-perceived mother stigma, and student-perceived father stigma on help-seeking intentions. First, it examines the fit of Vogel et al.'s (2007) stigma model on three ethnic samples: Caucasian Americans, Asian Americans, and Asians. Second, it examines the fit of the parent stigma model on the same three ethnic samples. Last, all paths of the parent stigma model were compared for the three samples to see if the paths were variant amongst the groups. In each section, the results of the hypothesis are examined to see if they were supported or refuted. Theoretical and empirical evidence is provided for supported hypotheses and possible explanations are provided for refuted hypotheses. In addition, the limitations, potential future studies, and implications are examined.

### Vogel et al. (2007) Stigma Model

The Vogel et al. (2007) fully mediated stigma model as shown by Figure 2 was a good fit for the Caucasian and Asian American samples in the current study. Hypothesis 1 was supported. Prior research has found similar support for Caucasian American samples (Bathje & Pryor, 2011; Vogel et al., 2009) and an Asian American sample (Choi & Miller, 2014).

The Vogel et al. (2009) fully mediated stigma model was a good fit for Asians, but the paths of self-stigma and intentions to seek help was null. However, public stigma was strongly related to self-stigma. Therefore, hypothesis 1 was partially supported.

Choi and Miller (2014) found that self-stigma mediated the relation between public stigma and intentions to seek help for Asians and Asian Americans. The current study found this relation to exist for the Asian Americans but not the Asians. Similarly, Wynaden et al. (2005), combining Asian and Asian Americans, found a negative relation between self-stigma

and intentions to seek help. The current author found support for this result for Asian Americans but not for Asians. A potential explanation that the result of the current study contradicted past studies may be the separation of Asian and Asian Americans into two separate groups. Choi and Miller (2014) and Wynaden et al. (2005) combined the samples together, thus not accounting for the nuance differences between the groups.

#### Parent Stigma Model

In order to examine the role of close others, specifically the most proximal and primary relationships were examined, the parents (Bronfenbrenner, 1979). Student-perceived mother stigma and student-perceived father stigma were added to the Vogel et al. (2007) stigma model. The goodness of fit for the parent stigma model for all three groups was explored utilizing path analysis.

Path analyses for Caucasian Americans and Asian Americans.

Public stigma contributed significant variance to self-stigma, but student-perceived mother stigma and student-perceived father stigma did not. In examining the mediation effects, only the relationship between public stigma and intentions to seek help was mediated by self-stigma, which aligns with prior research (Vogel et al. 2009, Choi & Miller, 2014). Neither student-perceived mother stigma nor student-perceived father stigma and intentions to seek help were mediated by self-stigma. No other studies examined these variables, so future studies need to continue to examine these variables to see if similar or different results occur.

Path analysis for Asians.

Public stigma and student-perceived mother stigma contributed significant variance to self-stigma, but student-perceived father stigma did not. In examining the mediation effects, self-stigma did not mediate the relation between any of the independent variables (public stigma,

student-perceived mother stigma, and student-perceived father stigma) and intentions to seek help. A potential explanation for this may be that in Asian culture the concept of self is far less important than the concept of others/public; collectivism is valued more than individualism (Sue & Sue, 2008). As self-stigma is a measure of internalized public stigma, in collectivist cultures individuals may not need to internalize the stigma for it to impact their decision-making process. In studies examining context, collectivist cultures are considered high context, whereas individualistic cultures are considered low context (Hall, 1989). High context cultures adhere to rules and follow what others ask of them without question. For example, an Asian child is more likely to strictly abide by his mother's rules than a Caucasian child. Given this difference, Asians may engage in behavior similar to their parents, because they believe they must (Kim, 2008). Further studies need to examine this result and see if the concept of self-stigma is applicable to Asians.

Only one other study examined Asians separately and found contrary findings. Yakunina and Weigold (2011) only studied Asian international students and concluded a null relation between stigma of close others and help seeking. This was contradictory to the current study results where mother stigma related positively to seeking help for Asian students, when father stigma was removed from the model. Two other studies are relevant but combined Asians and Asian Americans together. Cheng et al. (2013) examined Asian and Asian Americans together and stated a positive relation between stigma of close others and self-stigma. The current author found support of this result for Asians in that student-perceived mother stigma related positively to self-stigma, but not for Asian Americans. Okazaki (2000) studied Asian and Asian Americans together and found a negative relation between stigma of close others and seeking treatment. The current author found support for this in the Asian population, but not the Asian American

population. The varying results may indicate the importance of splitting Asians and Asian Americans into two groups and studying them in more detail rather than assuming they are similar or identical to each other.

#### Path Invariance for Three Groups

Caucasian Americans and Asian Americans.

Using Wald-chi square tests, paths d, e, f and g of the parent stigma model (see Figure 5) were invariant. In fact, none of the paths were invariant. Therefore, hypothesis three, which stated that Asian Americans would be variant from Caucasian Americans, was not supported. A potential explanation for this may be that for these two groups the views of their parents do not significantly influence their intentions or behavior. Sue and Sue (2008) stated that individualistic cultures place more emphasis on the self as autonomous and that children have the choice to believe and act differently from their parents with little or no consequences. Therefore, Caucasian American and Asian American young adults may respect their parents' beliefs, but may not feel the necessity to follow or allow those beliefs to influence their own choices/intentions. In particular to Asian Americans, the study was limited in that it did not explore acculturation to the dominant culture. It is possible that based on the acculturation status (acculturated vs. enculturated), Asian American children may place greater emphasis on adhering to their parents. Future studies should examine the parent stigma model on solely an Asian American population and measure for level of acculturation to see if acculturation may moderate the relation between parental stigma and self-stigma and/ or parental stigma and intentions to seek help.

Caucasian Americans and Asians.

Using Wald-Chi square tests, paths d, e, f and g of the parent stigma model (see Figure 5) were invariant; however, paths a, b, and c were variant. Hypotheses three was not supported as paths d through g were not variant between Caucasian Americans and Asians. A potential explanation for these results may circle back to the importance placed on individualism vs. collectivism in these two cultures. In Caucasian culture, rugged individualism is valued and a focus on self is emphasized, so a focus on self-stigma seems appropriate. In addition, as evidenced by many studies (e.g., Vogel et al. 2009, Ludwikowski et al., 2009) using a predominantly Caucasian American sample, public stigma is internalized as self-stigma, and therefore the direct effect of public stigma becomes less relevant. However, in Asian culture, collectivist ideals, we over I, are valued resulting in less of an emphasis on self and thus self-stigma. In addition, the result that the relation of public stigma and xx was significant for Asians may support that public stigma is not internalized into self-stigma and therefore the public may influence decision-making more than the self does.

Asian Americans and Asians.

Using Wald-Chi square tests, paths e, f and g of the parent stigma model (see Figure 5) were invariant; however, paths c and d were variant. Hypothesis three was partially supported as path d was variant amongst the groups, but path e, f, and g were not. A potential explanation is that self-stigma does not play a role for this sample of Asians, since there is little value placed on the concept of self. A potential reason that parent stigma may be positively related to self-stigma is the strong value of parent's view as one's own view in Asian culture (Kim, 2007).

Overall, Vogel et al. (2007) model does not work for this Asian sample. Further studies need to examine the relationship between mother stigma and self-stigma for Asians. In addition,

future studies need to examine how acculturation may influence the relationship, such as what level of acculturation does value of self become greater than value of others.

Separation of Asians and Asian Americans. The current study is one of the few that fully separated Asian and Asian American samples. Results indicated that Asian Americans related differently than Asians to the following relations: public stigma to intentions to seek help, self-stigma to intentions to seek help, student-perceived mother stigma to self-stigma, and student-perceived mother stigma to intentions to seek help. Overall, Asian Americans were more similar to Caucasian Americans than Asians. Therefore, prior research has limited examining the nuances between the two groups by combining them. With that said, it is important to note that these results were derived from a specific sample at a large, Midwestern university and therefore may not generalize to other domestic or international areas. Future research needs to be conducted to ascertain how Asian and Asian Americans are similar and different on the variables of interest.

#### Additional Analyses

Parent stigma model.

Using the Statistical Package for the Social Sciences 22 (SPSS 22), a hierarchical multiple regression was conducted to address if the addition of student-perceived mother stigma and student-perceived father stigma would contribute unique variance to intentions to seek help for each ethnic group. The criterion variable was intentions to seek help (ISCI). In the first step, public stigma (SSRPH) was entered into the model. In the second step, self-stigma (SSOSH) was added to the model. In the third step, student-perceived mother stigma (PSOSH-M) was entered into the model. In the final step, student-perceived father stigma (PSOSH-F) was added to the model. Predictor variables were standardized to reduce multicollinearity (Cohen, Cohen, West,

& Aiken, 2003). Please refer to Table 10 for the results of the hierarchical multiple regression for all three ethnic groups.

Hierarchical multiple regression for Caucasian Americans. ISCI was the criterion variable. In the first step, public stigma did explain a significant amount of variance (2.1%) in intentions to seek help [ $F(1, 324) = 6.57, p < .05$ ]. In step two, self-stigma contributed significant variance (13.9%) in intentions to seek help after accounting for variance due to public stigma as indicated by a significant increase [ $F(1, 323) = 51.54, p < .001$ ]. In step three, student-perceived mother stigma did not contribute significant variance (.10%) in intentions to seek help after accounting for variance due to public stigma and self-stigma [ $F(1, 322) = .07, p > .05$ ]. In the last step, student-perceived father stigma did not contribute significant variance (.10%) in intentions to seek help after accounting for variance due to public stigma, self-stigma, and student-perceived mother stigma [ $F(1, 321) = .18, p > .05$ ]. The hierarchical multiple regression did not provide support for the second hypothesis in that student-perceived mother stigma and student-perceived father stigma did not contribute significant variance to intentions to seek help after accounting for the variance due to public stigma and self-stigma. See Table 10 for further details.

Hierarchical multiple regression for Asian Americans. ISCI was the criterion variable. In the first step, public stigma did not explain a significant amount of variance (1.6%) in intentions to seek help [ $F(1, 159) = 2.34, p > .05$ ]. In step two, self-stigma contributed significant variance (8.5%) in intentions to seek help after accounting for variance due to public as indicated by a significant increase [ $F(1, 158) = 13.62, p < .001$ ]. In step three, student-perceived mother stigma did not contribute significant variance (.10%) in intentions to seek help after accounting for variance due to public stigma and self-stigma [ $F(1, 157) = .21, p > .05$ ]. In the final step, student-

perceived father stigma did not contribute significant variance (1.8%) in intentions to seek help after accounting for variance due to public stigma, self-stigma, and student-perceived mother stigma [ $F(1, 156) = 2.89, p > .05$ ]. The hierarchical moderated multiple regression did not provide support for the second hypothesis in that student-perceived mother stigma and student-perceived father stigma did not contribute significant variance to intentions to seek help after accounting for variance due to public stigma and self-stigma. See Table 10 for further details.

Hierarchical multiple regression for Asians. ISCI was the criterion variable. In the first step, public stigma did not explain a significant amount of variance (1.0%) in intentions to seek help [ $F(1, 318) = 3.04, p > .05$ ]. In step two, self-stigma did not contribute significant variance (< 0.1%) in intentions to seek help after accounting for variance due to public stigma [ $F(1, 317) = .09, p > .05$ ]. In step three, student-perceived mother stigma contributed significant variance (3.3%) in intentions to seek help after accounting for variance due to public stigma and self-stigma [ $F(1, 316) = 10.57, p < .01$ ]. In the last step, student-perceived father stigma did not contribute significant variance (.10%) in intentions to seek help after accounting for variance due to public stigma, self-stigma, and student-perceived mother stigma [ $F(1, 315) = .31, p > .05$ ]. The hierarchical moderated multiple regression did provide partial support for the second hypothesis in that student-perceived mother stigma did contribute significant variance to intentions to seek help after accounting for variance due to public stigma and self-stigma, but student-perceived father stigma did not contribute significant variance. See Table 10 for further details.

Hierarchical multiple regressions for Caucasian Americans and Asian Americans. Public stigma contributed significant variance to help seeking intentions, which is similar to past research (e.g., Clement et al., 2015). Self-stigma contributed significant variance to help seeking

intentions after accounting for public stigma, which is similar to past research as well (e.g., Vogel et al. 2007). Student-perceived mother stigma and student-perceived father stigma did not account for additional variance. Hypothesis two was not supported as the addition of student-perceived mother stigma and student-perceived father stigma did not contribute additional significant variance to help-seeking intentions. A potential explanation for this result may be that Caucasian Americans and Asian Americans place greater value on individualism vs. collectivism and place less emphasis on parents' beliefs and views of stigma and counseling. A limitation of this study was that acculturation status for Asian Americans was not examined as that may have potentially moderated the relationship between student-perceived mother stigma and intentions to seek help as well as student-perceived father stigma and intentions to seek help.

Hierarchical multiple regression for Asians. Public stigma, self-stigma and student-perceived father stigma did not contribute unique variance to intentions to seek help. Student-perceived mother stigma did explain significant variance after accounting for public stigma and self-stigma. Hypothesis two was partially supported as the addition of student-perceived mother stigma did contribute additional significant variance to help-seeking intentions. However, it is possible that if student-perceived father stigma was added before student-perceived mother stigma, it would have accounted for significant amount of the variance in intentions to seek help due to student-perceived mother stigma and student-perceived father stigma being highly correlated ( $r = .81$ ). In this sample, Asian individuals were not differentiating between mother and father. Additionally, while the  $R^2$  difference after adding mother stigma and accounting for public stigma and self-stigma was significant, it was small and may have been a result of a large sample size ( $N = 319$ ). A potential explanation for the results may be the value placed in collective culture on family and the parents as the primary caretaker and role model in the family

(Bronfenbrenner, 1979). Parents are the most proximal relationships for a child's growth and development (Bronfenbrenner, 1979) and this may be heightened in Asian culture due to value placed on interdependence (Kim, 2007). Therefore, the views of parents greatly influence decision-making of the child.

### Limitations

First, given that the Asian Americans and Asian did not have similar results as expected by the author, some additional factors may be differentiating the two. One potential explanation may be acculturation or generational status. Therefore, acculturation or generational status should be explicitly measured and accounted for in future studies. Second, the sample size of Caucasian Americans and Asians was double that of Asian Americans. Therefore, a more equal sample size among all three groups may have yielded different results although bootstrapping analyses allows equal comparisons. Third, the study was conducted online and students participated on a voluntary basis. It is possible that those who self-selected to take the survey are uniquely different than those who opted out of it. Fourth, perception of parents' stigma was measured rather than the parent's own self report. Self-report may not reflect the actual reality of parents' views towards seeking help. Last, attachment as a moderator may also be considered in future studies in that Vogel et al. (2010) found that relationship between parents' willingness to seek help and child's willingness to seek help was moderated by attachment.

### Implications

The major contribution of this study is the importance of acknowledging that Asian samples may be different from Asian American and Caucasian American samples when studying stigma and help-seeking. In addition, Asians and Asian Americans should not be lumped together as they may relate differently to the variables of interest. The role of parents varied

significantly between Asian and Asian Americans in this study. While the reason for these differences was not explicitly studied, acculturation may be a potential reason as Asian-Americans may be more acculturated than Asians. Also student-perceived mother stigma contributed significant variance to help-seeking intentions for Asians, but not to the other two groups. Therefore, Asian individuals may place greater importance on parental influence than the other two groups. Future studies need to continue to examine what makes Asians different from the other groups and if other variables mediate or moderate the relations of public stigma, self-stigma, parental stigma (mother and father) and intentions to seek help. Potential mediator or moderator variables may be acculturation, attachment to parents, adherence to collectivist vs. individualistic ideals, and report from parents of stigma.

#### Clinical Implications

This study is one of the few that has intentionally separated Asian Americans and Asians when studying factors that impact help-seeking intentions. As a result, the study found that Asian Americans and Asians have differential influences on their help-seeking intentions. Therefore, clinicians should not lump these groups together when engaging in therapy and outreach.

In therapy, clinicians must re-evaluate if their focus on an individualistic lens is appropriate for certain populations. As this study concluded, Asian Americans may place greater emphasis on self in decision-making about seeking help, whereas Asians may place greater emphasis on others, such as parents, in the decision-making about seeking help. Therefore, clinicians would benefit, especially with Asians, to focus on the familial culture and who influences their decision-making and have those individuals be just as integral a part of therapy as the clients themselves.

In outreach, clinicians would benefit from gaining a deeper understanding beforehand of the population they are speaking to and tailoring their resources and presentation materials to jive with that population. For Asian American and Caucasian American students, a conventional approach of focusing on the individual may be effective, because these two populations seem to internalize stigma resulting in less intentions to seek help. Therefore, outreaches with resources and activities that focus on the self and reducing self-stigma may be beneficial. However, for Asian students, clinician would benefit from finding ways to reach out to parents, specifically mothers and informing them of mental health resources; counselor could provide workshops that display myths about therapy and mental health to both parents and student together or separately. In addition, Asian students may benefit greatly from workshops where they and their parents discuss their respective perspectives on mental health and therapy with a counselor present that can help facilitate the conversation to be helpful rather than hindering.

Last, counselors could explore other factors that impact Asian-identified clients' stigma and intentions to seek help. Counselor could inform the trajectory of future research by gaining an understanding from their clients what aspects influence them. For example, the current author hypothesized acculturation or attachment differences may play a role. This study emphasizes the importance of research and application matching and informing each other. Therefore, the most crucial implication for clinicians is to embrace that Asian Americans and Asian are separate in stigma and help-seeking intentions and to continue pursuing further research that examines the differences between the populations.

### Conclusion

Overall, this study concluded that the relation of stigma and help-seeking varies significantly for Asians compared to their Asian American and Caucasian American counterparts.

First, self-stigma did not relate to help-seeking intentions for Asians but did for Asian Americans and Caucasian Americans. On the other hand, parental stigma, in particular mother stigma significantly related to self-stigma for Asians but not the other two groups. Finally, Asian and Asian Americans were more different than alike and Asian Americans aligned more closely with Caucasian Americans. Therefore, future studies on stigma and help-seeking should be cautious in lumping together Asians and Asian Americans. This study also paved the way for future studies to examine what factors may cause different results for Asians and Asian Americans, such as acculturation.

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Table 1.

*Demographics for Overall sample and by Each Ethnic Group*

	Overall	Caucasian American	Asian American	Asian
1. Sample size	804	325	160	319
2. Female	428	199	86	143
3. Male	373	125	73	175
4. Average Age	22.6	22.1	20.4	23.3
5. % of Freshmen	17.0	21.2	28.7	8.2
6. % of Sophomores	14.2	19.4	17.5	8.5
7. % of Juniors	16.2	24.6	20.6	6.6
8. % of Seniors	16.4	20.9	16.9	12.9
9. % of Graduate Students	31.6	11.4	15.0	63.0
10. % of Other	1.4	2.2	1.3	.9
11. % Sought Counseling	31.5	48.0	35.6	15.0

Table 2a.

*Summary of Means, Standard Deviations, and Correlations for All Variables under Examination for Whole Sample*

	1	2	3	4	5
1. Public Stigma	-				
2. Self-stigma	.39**	-			
3. Student-Perceived Mother Stigma	.33**	.21**	-		
4. Student-Perceived Father Stigma	.37**	.24**	.74**	-	
5. Intentions to Seek Help	-.12**	-.23**	.07*	.06	-
<i>M</i>	2.21	2.54	1.48	1.51	2.32
<i>SD</i>	.58	.66	.73	.81	.76

Note. N = 804 (428 women, 373 men). Bivariate correlations are presented below the diagonal. Means and standard deviations are presented in the horizontal rows. Higher mean scores indicate more public stigma, more self-stigma, more student-perceived mother stigma, more student-perceived father stigma and more intentions to seek help. Public stigma ranges from 1-4, self-stigma ranges from 1-5, student-perceived mother/father stigma ranger from 1-5, and intentions to seek help ranges from 1-6. \* $p < .05$ . \*\* $p < .01$ .

Table 2b.

*Summary of Means, Standard Deviations, and Correlations for All Variables under Examination by Sex for Whole Sample*

	1	2	3	4	5	M	SD
1. Public Stigma	-	.38**	.33**	.37**	-.12**	2.15	.58
2. Self-stigma	.40**	-	.23**	.24**	-.25**	2.52	.66
3. Student-Perceived Mother Stigma	.31**	.19**	-	.75**	.10	1.47	.71
4. Student-Perceived Father Stigma	.35**	.24**	.75**	-	.06	1.47	.83
5. Intentions to Seek Help	-.10	-.21**	.06	.06	-	2.38	.76
<i>M</i>	2.28	2.56	1.50	1.56	2.26	-	-
<i>SD</i>	.58	.67	.75	.77	.75	-	-

*Note.* N = 804 (428 women, 373 men). Three participants did not report gender. Bivariate correlations for women are presented above the diagonal and bivariate correlations for men are presented below the diagonal. Means and standard deviations for women are presented in the vertical columns and the means and standard deviations for men are presented in the horizontal rows. Higher mean scores indicate more public stigma, more self-stigma, more student-perceived mother stigma, more student-perceived father stigma and more intentions to seek help. Public stigma ranges from 1-4, self-stigma ranges from 1-5, student-perceived mother/father stigma ranger from 1-5, and intentions to seek help ranges from 1-6. \*p < .05. \*\*p < .01.

Table 3a.

*Summary of Means, Standard Deviations, and Correlations for All Variables under Examination for Caucasian Americans*

	1	2	3	4	5
1. Public Stigma	-				
2. Self-stigma	.44**	-			
3. Student-Perceived Mother Stigma	.35**	.28**	-		
4. Student-Perceived Father Stigma	.37**	.30**	.71**	-	
5. Intentions to Seek Help	-.14*	-.39**	-.09	-.09	-
<i>M</i>	2.25	2.63	1.28	1.37	2.13
<i>SD</i>	.53	.72	.57	.76	.61

*Note.* N = 325 (199 women, 125 men). Bivariate correlations are presented below the diagonal. Means and standard deviations are presented in the horizontal rows. Higher mean scores indicate more public stigma, more self-stigma, more student-perceived mother stigma, more student-perceived father stigma and more intentions to seek help. Public stigma ranges from 1-4, self-stigma ranges from 1-5, student-perceived mother/father stigma ranger from 1-5, and intentions to seek help ranges from 1-6. \*p < .05. \*\*p < .01.

Table 3b.

*Summary of Means, Standard Deviations, and Correlations for All Variables under Examination by Sex for Caucasian Americans*

	1	2	3	4	5	M	SD
1. Public Stigma	-	.46**	.33**	.36**	-.20**	2.21	.52
2. Self-stigma	.41**	-	.29**	.27**	-.42**	2.61	.71
3. Student-Perceived Mother Stigma	.40**	.26**	-	.72**	-.16*	1.28	.58
4. Student-Perceived Father Stigma	.41**	.35**	.69**	-	-.15*	1.37	.82
5. Intentions to Seek Help	-.01	-.36**	.03	.05	-	2.18	.61
<i>M</i>	2.31	2.65	1.26	1.36	2.04	-	-
<i>SD</i>	.54	.76	.55	.64	.60	-	-

*Note.* N = 325 (199 women, 125 men). One participant did not report gender. Bivariate correlations for women are presented above the diagonal and bivariate correlations for men are presented below the diagonal. Means and standard deviations for women are presented in the vertical columns and the means and standard deviations for men are presented in the horizontal rows. Higher mean scores indicate more public stigma, more self-stigma, more student-perceived mother stigma, more student-perceived father stigma and more intentions to seek help. Public stigma ranges from 1-4, self-stigma ranges from 1-5, student-perceived mother/father stigma ranger from 1-5, and intentions to seek help ranges from 1-6. \*p < .05. \*\*p < .01.

Table 4a.

*Summary of Means, Standard Deviations, and Correlations for All Variables under Examination for Asian Americans*

	1	2	3	4	5
1. Public Stigma	-				
2. Self-stigma	.38**	-			
3. Student-Perceived Mother Stigma	.44**	.11	-		
4. Student-Perceived Father Stigma	.45**	.20*	.66**	-	
5. Intentions to Seek Help	-.14	-.31**	-.06	.01	-
<i>M</i>	2.26	2.60	1.66	1.65	2.20
<i>SD</i>	.58	.67	.75	.77	.75

*Note.* N = 160 (86 women, 73 men). Bivariate correlations are presented below the diagonal. Means and standard deviations are presented in the horizontal rows. Higher mean scores indicate more public stigma, more self-stigma, more student-perceived mother stigma, more student-perceived father stigma and more intentions to seek help. Public stigma ranges from 1-4, self-stigma ranges from 1-5, student-perceived mother/father stigma ranger from 1-5, and intentions to seek help ranges from 1-6. \*p < .05. \*\*p < .01.

Table 4b.

*Summary of Means, Standard Deviations, and Correlations for All Variables under Examination by Sex for Asian Americans*

	1	2	3	4	5	M	SD
1. Public Stigma	-	.35**	.47**	.44**	-.11	2.26	.65
2. Self-stigma	.43**	-	.21*	.22	-.29**	2.54	.66
3. Student-Perceived Mother Stigma	.42**	.01	-	.71**	-.04	1.67	.83
4. Student-Perceived Father Stigma	.45**	.13	.66**	-	.07	1.64	.95
5. Intentions to Seek Help	-.16	-.31**	-.09	-.04	-	2.30	.63
<i>M</i>	2.26	2.66	1.64	1.63	2.08	-	-
<i>SD</i>	.61	.64	.93	.85	.67	-	-

*Note.* N = 160 (86 women, 73 men). One participant did not report gender. Bivariate correlations for women are presented above the diagonal and bivariate correlations for men are presented below the diagonal. Means and standard deviations for women are presented in the vertical columns and the means and standard deviations for men are presented in the horizontal rows. Higher mean scores indicate more public stigma, more self-stigma, more student-perceived mother stigma, more student-perceived father stigma and more intentions to seek help. Public stigma ranges from 1-4, self-stigma ranges from 1-5, student-perceived mother/father stigma ranger from 1-5, and intentions to seek help ranges from 1-6. \*p < .05. \*\*p < .01.

Table 5a.

*Summary of Means, Standard Deviations, and Correlations for All Variables under Examination for Asians*

	1	2	3	4	5
1. Public Stigma	-				
2. Self-stigma	.35**	-			
3. Student-Perceived Mother Stigma	.31**	.32**	-		
4. Student-Perceived Father Stigma	.37**	.27**	.81**	-	
5. Intentions to Seek Help	-.10	-.02	.15**	.12*	-
<i>M</i>	2.15	2.42	1.61	1.61	2.58
<i>SD</i>	.61	.58	.76	.79	.86

*Note.* N = 319 (143 women, 175 men). Bivariate correlations are presented below the diagonal. Means and standard deviations are presented in the horizontal rows. Higher mean scores indicate more public stigma, more self-stigma, more student-perceived mother stigma, more student-perceived father stigma and more intentions to seek help. Public stigma ranges from 1-4, self-stigma ranges from 1-5, student-perceived mother/father stigma ranger from 1-5, and intentions to seek help ranges from 1-6. \*p < .05. \*\*p < .01.

Table 5b.

*Summary of Means, Standard Deviations, and Correlations for All Variables under Examination by Sex for Asians*

	1	2	3	4	5	M	SD
1. Public Stigma	-	.30**	.35**	.40**	-.01	3.06	.59
2. Self-stigma	.38**	-	.30**	.27**	.04	1.82	.57
3. Student-Perceived Mother Stigma	.29**	.33**	-	.83**	.24**	2.27	.75
4. Student-Perceived Father Stigma	.33**	.27**	.80**	-	.21*	3.35	.76
5. Intentions to Seek Help	-.14	-.05	.07	.06	-	2.85	.90
<i>M</i>	2.26	2.46	1.61	1.68	2.48	-	-
<i>SD</i>	.61	.59	.76	.80	.81	-	-

*Note.* N = 319 (143 women, 175 men). One participant did not report gender. Bivariate correlations for women are presented above the diagonal and bivariate correlations for men are presented below the diagonal. Means and standard deviations for women are presented in the vertical columns and the means and standard deviations for men are presented in the horizontal rows. Higher mean scores indicate more public stigma, more self-stigma, more student-perceived mother stigma, more student-perceived father stigma and more intentions to seek help. Public stigma ranges from 1-4, self-stigma ranges from 1-5, student-perceived mother/father stigma ranger from 1-5, and intentions to seek help ranges from 1-6. \* $p < .05$ . \*\* $p < .01$ .

Table 6.

*Summary of Chi-Square and Goodness of Fit Measures for Vogel et al.'s (2007) Fully Saturated and Fully Mediated Models for All Three Ethnic Groups*

	Fully Saturated Stigma Model				Fully Mediated Stigma Model			
	Chi-Square	RMSEA	SRMR	CFI	Chi-Square	RMSEA	SRMR	CFI
1. Caucasian American	1.00	0.00	0.00	1.00	0.63	0.00	0.01	1.00
2. Asian American	1.00	0.00	0.00	1.00	0.04	0.00	0.01	1.00
3. Asian	1.00	0.00	0.00	1.00	3.15	0.08	0.03	0.95

*Note.* N = 804 (325 Caucasian Americans, 160 Asian Americans, 319 Asians).

Table 7.

*Bootstrap Analysis of Magnitude and Statistical Significance of Indirect Effects of Public stigma on Intentions to Seek Help through Self-stigma for All Three Ethnic Groups*

		Indirect Effects	B and product	Mean Indirect Effect (b) <sup>a</sup>	SE of Mean <sup>a</sup>	95% CI
<i>Caucasian American: Fully Saturated Model</i>						
Public Stigma	Self-stigma	Intentions to seek help (.60) X (-.35) = -.207		-.21	.04	-.27, -.15*
<i>Caucasian American: Fully Mediated Model</i>						
Public Stigma	Self-stigma	Intentions to seek help (.60) X (-.33) = -.197		-.20	.03	-.26, -.15*
<i>Asian American: Fully Saturated Model</i>						
Public Stigma	Self-stigma	Intentions to seek help (.40) X (-.31) = -.124		-.12	.04	-.21, -.06*
<i>Asian American: Fully Mediated Model</i>						
Public Stigma	Self-stigma	Intentions to seek help (.40) X (-.32) = -.126		-.13	.04	-.20, -.07*
<i>Asian: Fully Saturated Model</i>						
Public Stigma	Self-stigma	Intentions to seek help (.33) X (.03) = .010		.01	.03	-.04, .07
<i>Asian: Fully Mediated Model</i>						
Public Stigma	Self-stigma	Intentions to seek help (.33) X (-.03) = -.009		-.01	.03	-.05, .04

Note. N = 804 (325 Caucasian Americans, 160 Asian Americans, and 319 Asians). CI = Confidence Interval. <sup>a</sup>These values are based on the unstandardized path coefficients. \*95% Confidence interval does not include zero and therefore is significant at  $p < .05$ .

Table 8.

*Bootstrap Analysis of Magnitude and Statistical Significance of Indirect Effects of Public Stigma, Student-perceived Mother Stigma, and Student-perceived Father Stigma on Intentions to Seek Help through Self-stigma for All Three Ethnic Groups*

Indirect Effects		B and product	Mean Indirect Effect (b) <sup>a</sup>	SE of Mean <sup>a</sup>	95% BC CI
<i>Caucasian Americans</i>					
Public Stigma	Self-stigma	Intentions to seek help $(.51) \times (-.35) = -.178$	-.18	.04	-.24, -.12*
Student-perceived mother stigma	Self-stigma	Intentions to seek help $(.09) \times (-.35) = -.030$	-.03	.04	-.09, .04
Student-perceived father stigma	Self-stigma	Intentions to seek help $(.11) \times (-.35) = -.038$	-.04	.03	-.09, .01
<i>Asian Americans</i>					
Public Stigma	Self-stigma	Intentions to seek help $(.41) \times (-.33) = -.133$	-.13	.05	-.23, -.07*
Student-perceived mother stigma	Self-stigma	Intentions to seek help $(-.11) \times (-.33) = .036$	.04	.03	-.01, .10
Student-perceived father stigma	Self-stigma	Intentions to seek help $(.09) \times (-.33) = -.030$	-.03	.03	-.08, .01
<i>Asians</i>					
Public Stigma	Self-stigma	Intentions to seek help $(.27) \times (-.04) = -.011$	-.01	.03	-.06, .03
Student-perceived mother stigma	Self-stigma	Intentions to seek help $(.21) \times (-.04) = -.009$	-.01	.02	-.05, .02
Student-perceived father stigma	Self-stigma	Intentions to seek help $(-.04) \times (-.04) = .002$	.01	.01	-.01, .02

Note. N = 804 (325 Caucasian Americans, 160 Asian Americans, and 319 Asians). CI = Confidence Interval. <sup>a</sup>These values are based on the unstandardized path coefficients. \*95% Confidence interval does not include zero and therefore is significant at  $p < .05$ .

Table 9.  
*Wald Tests of Ethnic Group Path Coefficient Differences*

Path	$\chi^2$	P	$b_1, b_2$
<i>Caucasian American and Asian American</i>			
Intention to Seek Help → Public Stigma	0.41	.52	.04, -.03
Intention to Seek Help → Self-stigma	0.07	.79	-.35**, -.33**
Intentions to Seek Help → Mother Stigma	0.61	.44	-.01, -.10
Intentions to Seek Help → Father Stigma	1.14	.29	.03, .13
Self-stigma → Public Stigma	0.63	.43	.51**, .40**
Self-stigma → Mother Stigma	2.29	.13	.09, -.11
Self-Stigma → Father Stigma	0.02	.88	.11, .09
<i>Caucasian American and Asian</i>			
Intentions to Seek Help → Public Stigma	5.12	< .05	.04, -.23*
Intentions to Seek Help → Self-stigma	8.11	< .05	-.35**, -.04
Intention to Seek Help → Mother stigma	1.99	.16	-.01, .18
Intention to Seek Help → Father Stigma	0.07	.79	.03, .06
Self-Stigma → Public Stigma	5.49	< .05	.51**, .27**
Self-stigma → Mother Stigma	1.07	.30	.09, .21**
Self-stigma → Father Stigma	2.45	.12	.11, -.04
<i>Asian American and Asian</i>			
Intentions to Seek Help → Public Stigma	1.94	.16	-.03, -.23*
Intentions to Seek Help → Self-Stigma	5.38	< .05	-.33**, -.04
Intention to Seek Help → Mother stigma	3.94	.05	-.10, .18
Intention to Seek Help → Father Stigma	0.29	.59	.13, .06
Self-Stigma → Public Stigma	1.25	.26	.40**, .27**
Self-stigma → Mother Stigma	9.97	< .01	-.11, .21**
Self-stigma → Father Stigma	2.21	.14	.09, -.04

*N* = 804 (325 Caucasian Americans, 160 Asian Americans, and 319 Asians). *p* > .05 indicates path equivalence and *p* < .05 indicates path variance. Unstandardized path coefficients are reported. \*\**p* < .001  
 \**p* < .05

Table 10.  
*Hierarchical Multiple Regressions for Parent Stigma Model for All Three Ethnic Groups*

	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	R <sup>2</sup> Change	F value for R <sup>2</sup> change	p
<i>Caucasian American (N = 325)</i>						
1. Public Stigma	.14	.02	.02	.02	6.57	.01
2. Self-Stigma	.40	.16	.15	<b>.14</b>	51.54	< .001
3. Student-perceived mother and father stigma	.40	.16	.15	< .01	.12	.88
<i>Asian American (N = 160)</i>						
1. Public Stigma	.13	.02	.01	.02	2.34	.13
2. Self-Stigma	.32	.10	.09	<b>.09</b>	13.62	< .001
3. Student-perceived mother and father stigma	.35	.12	.10	.02	1.55	.22
<i>Asian (N = 319)</i>						
1. Public Stigma	.10	.01	.01	.01	3.04	.08
2. Self-Stigma	.10	.01	< .01	< .001	.09	.77
3. Student-perceived mother and father stigma	.21	.04	.03	<b>.03</b>	5.43	.01

*Note.* The bolded values represent significant changes ( $p < .05$ ) in the amount of variance

accounted for in the criterion variable.

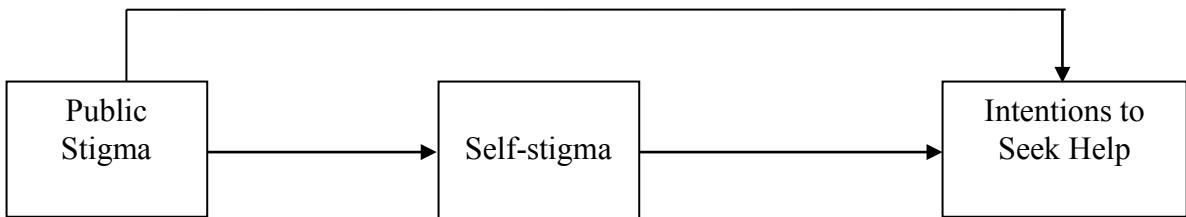


Figure 1. Hypothesized Vogel et al.'s (2007) Stigma Model: Fully Saturated for All Three Ethnic Groups

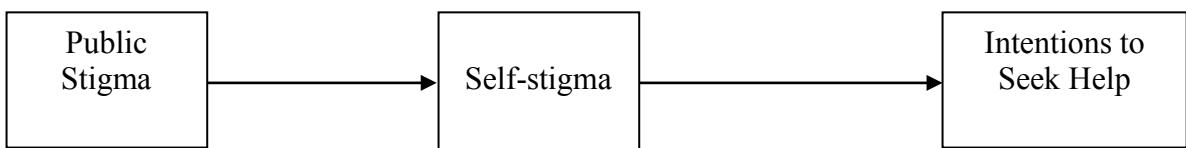


Figure 2. Hypothesized Vogel et al.'s (2007) Stigma Model: Fully Mediated for All Three Ethnic Groups

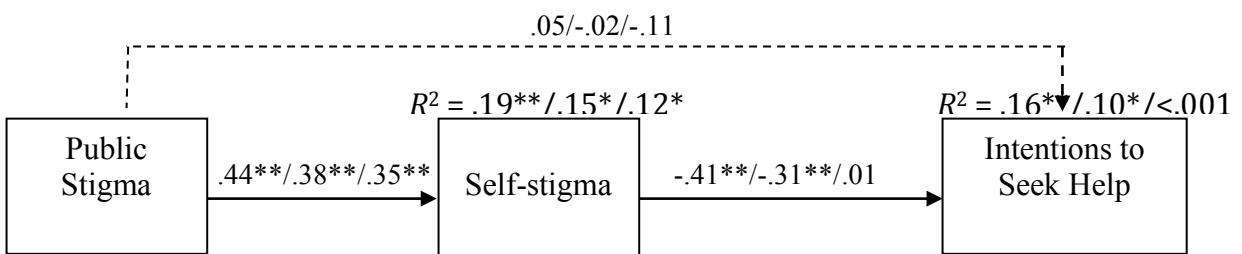


Figure 3. Final Vogel et al.'s (2007) Stigma Model: Fully Saturated for Caucasian Americans, Asian Americans, and Asians, respectively. Standardized path coefficients are reported.

\*  $p < .05$  \*\*  $p < .001$

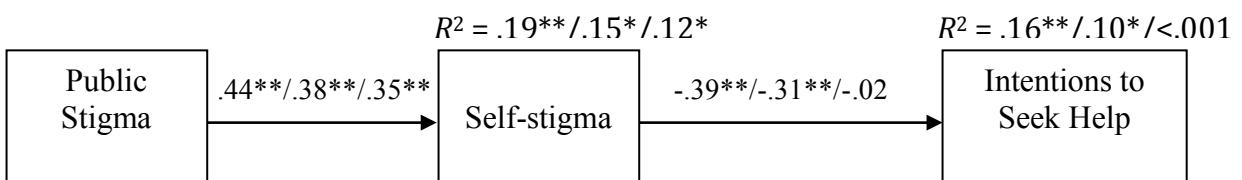


Figure 4. Final Vogel et al.'s (2007) Stigma Model: Fully Mediated for Caucasian Americans, Asian Americans, and Asians, respectively. Standardized path coefficients are reported.

\*\*  $p < .001$

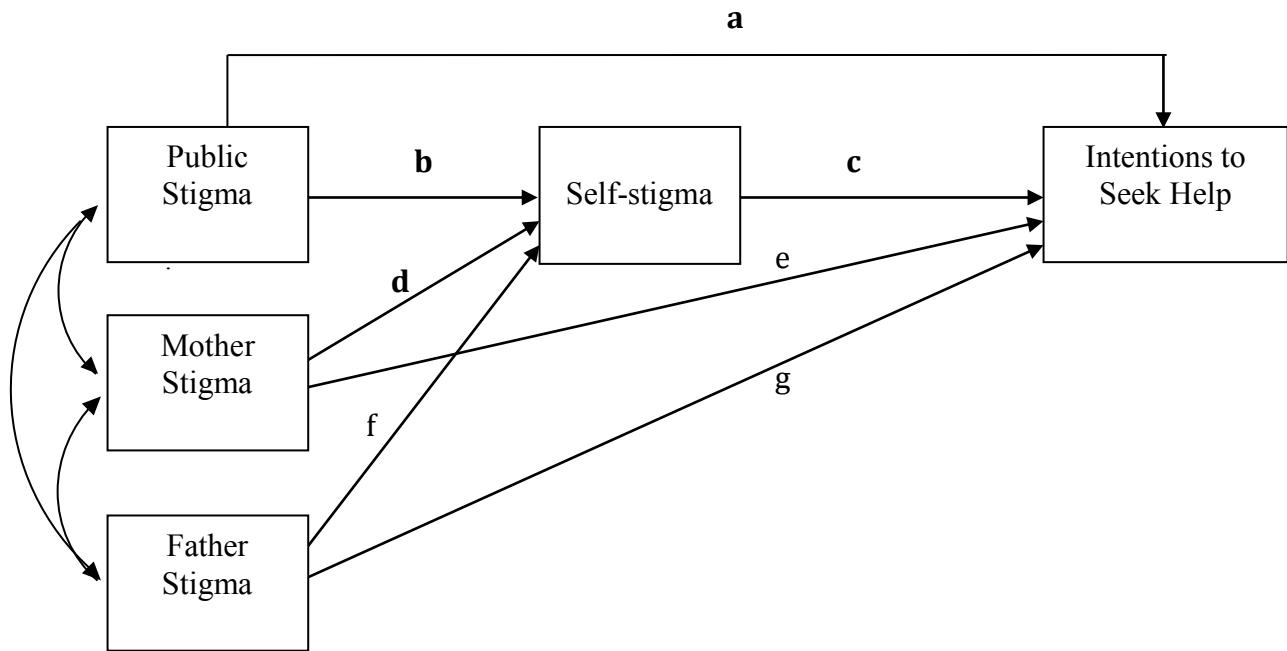


Figure 5. Hypothesized Parental Stigma Model for Caucasian Americans, Asian Americans, and Asians, respectively. Results indicated that bolded paths were variant amongst the three groups.

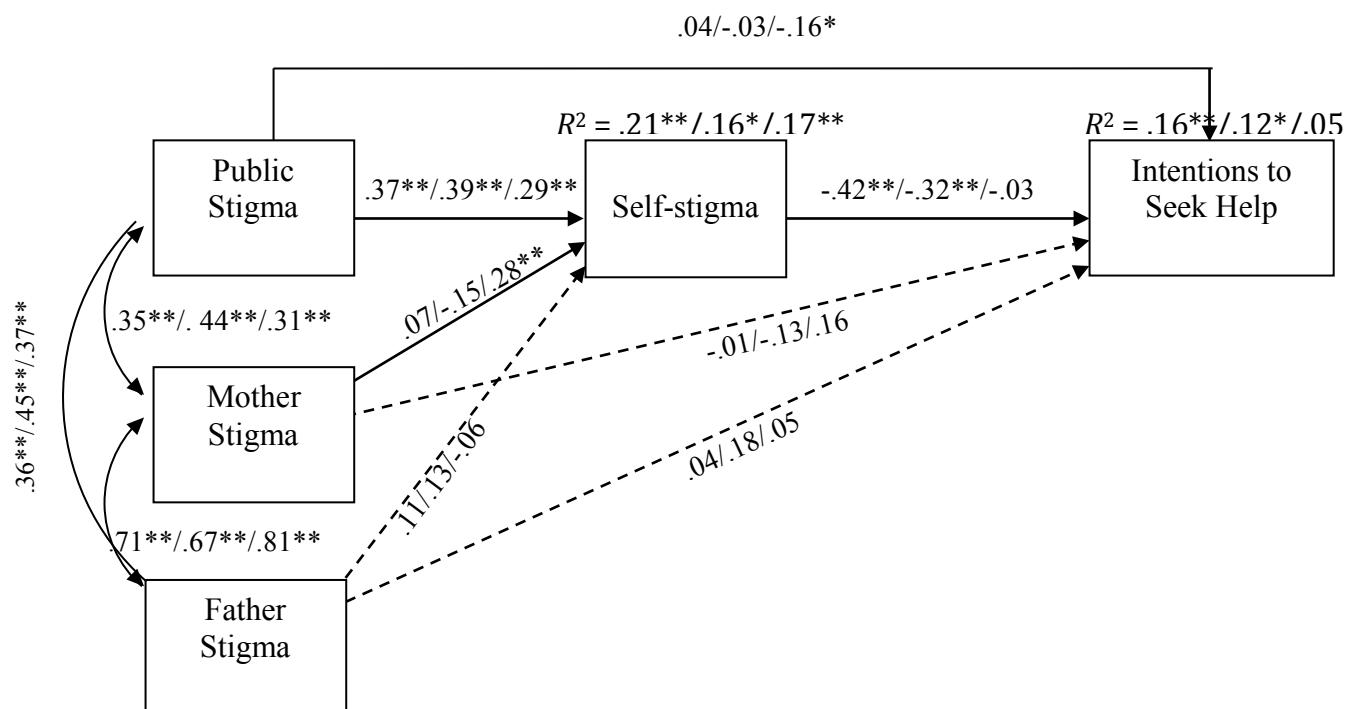


Figure 6. Final Parental Stigma Model for Caucasian Americans, Asian Americans, and Asians, respectively. Standardized path coefficients are reported. \*\*  $p < .001$  \*  $p < .05$ .

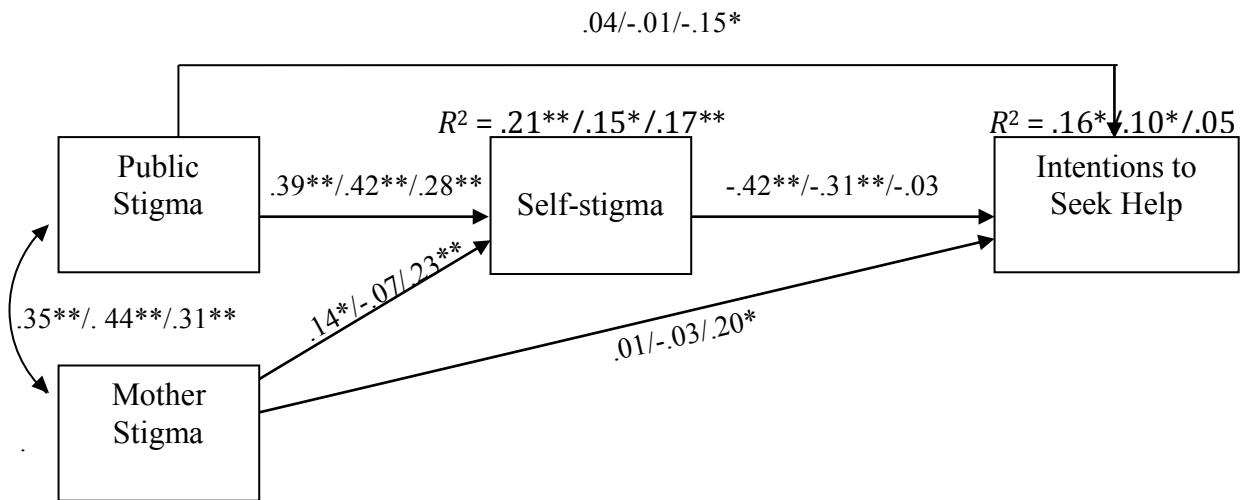


Figure 7. Final Parental Stigma Model for Caucasian Americans, Asian Americans, and Asians, respectively- father stigma removed. Standardized path coefficients are reported. \*\*  $p < .001$  \*  $p < .05$ .

## **APPENDIX A. DEMOGRAPHICS QUESTIONNAIRE**

Age:            18 or older, please specify age: \_\_\_\_\_

Gender:      Male  
                Female  
                Other

Ethnicity: Chinese  
Taiwanese  
Indian  
Japanese  
Korean  
Malaysian  
Caucasian/White  
Other, please specify

Citizenship Status:  US Citizen  Resident Alien (Green Card)  Nonresident Alien (e.g., F-1 visa)  Other:

Generational Status: International Student  
1.5 Generation (only you were born in US)  
Second Generation (you and one of your parents were born in US)  
Third Generation (you, your parents, and your grandparents were born in US)

Country of Origin (where you were born)

Year in School:      Freshman  
                            Sophomore  
                            Junior  
                            Senior  
                            Graduate Student  
                            Other:

Have you ever received counseling or seen a counselor? Yes  
No

**APPENDIX B. STIGMA SCALE FOR RECEIVING PSYCHOLOGICAL HELP (SSRPH)**  
(Komiya et al., 2000)

**1** = Strongly Disagree, **2** = Disagree, **3** = Agree, **4** = Strongly Agree

1. Seeing a psychologist for emotional or interpersonal problems carries social stigma.
2. It is a sign of personal weakness or inadequacy to see a psychologist for emotional or interpersonal problems.
3. People will see a person in less favorable way if they come to know he or she has seen a psychologist.
4. It is advisable for a person to hide from people that he/she has seen a psychologist.
5. People tend to like less those who are receiving professional psychological help.

**APPENDIX C. STIGMA SCALE FOR RECEIVING PSYCHOLOGICAL HELP (SSRPH)**  
**CHINESE VERSION**  
(Komiya et al., 2000)

請□讀以下句子，並用下列的量表選出適當的選項，來代表你對這些句子同意或不同意的程度。

1 = 非常不同意, 2 = 不同意, 3 = 同意, 4 = 非常同意

1. 因情緒或人際問題而尋求心理專家的協助，這個舉動是帶有社會口名的。
2. 因情緒或人際問題而尋求心理專學家的協助代表著個人的軟弱與不足。
3. 人們會以不太好的態度去看待那些曾經尋求心理專家協助的人。
4. 一個人隱瞞自己曾尋求心理專家的協助是個明智之舉。
5. 人們會比較不喜歡那些正在接受專業心理協助的人。

**APPENDIX D. SELF-STIGMA OF SEEKING HELP SCALE (SSOSH)**  
(Vogel et al., 2006)

**1** = Strongly Disagree, **2** = Disagree, **3** = Agree and Disagree Equally, **4** = Agree, **5** = Strongly Disagree

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

**APPENDIX E. SELF-STIGMA OF SEEKING HELP SCALE (SSOSH)**  
**CHINESE VERSION**  
(Vogel et al., 2006)

在面對困難的時候，人們有時會考慮尋求心理協助，而這個舉動可能會引起一些反應。請依照你對求助情境的反應，並用下列的量表選出適當的號碼，來代表你對這些句子同意或不同意的程度。

1 = 非常不同意, 2 = 不同意, 3 = 中立, 4 = 同意, 5 = 非常同意

1. 假如我去尋求治□師的心□專業協助，我會覺得自己很沒用。
2. 即使我去尋求心□專業協助，也□會損壞我的自信心。
3. 尋求心□專業協助會讓我覺得自己沒有那麼聰明。
4. 如果我跟心理學家話，會提昇我的自尊心。
5. 我對自己的看法□會因為選擇去看心理學家而改變。
6. 尋求心理學家協助會讓我覺得自卑。
7. 我覺得自己很好，即使我決定去尋求心理專業協助。
8. 假如我看心理學家，我會對自己有所□滿。
9. 如果我因為自己無法解決的問題而去尋求心理專業協助，我的自信心□會因此而有所改變。
10. 如果我□能解決自己的問題，我會覺得自己很差勁。

**APPENDIX F. PERCEPTIONS OF STIGMATIZATION BY OTHERS FOR SEEKING  
HELP (PSOSH) - MOTHER**  
(Vogel et al., 2009)

Please answer the following questions about your mother. If you do not have any contact with your mother, but there is another adult of the same gender living with your house (for example, a stepmother) then please answer the questions about that other adult.

If you have no contact with your mother, and there is not another adult of that same gender with whom you live, then leave the questions below blank.

Imagine you had personal, academic or vocational issues that you could not solve on your own. If you sought counseling for service for this issue, to what degree do you believe that your mother would \_\_\_\_.

**1 = Not at all, 2 = A little, 3 = Some, 4 = A lot, 5 = A great deal**

1. React negatively to you
2. Think bad things of you
3. See you as seriously disturbed
4. Think of you in a less favorable way
5. Think you posed a risk to others

**APPENDIX G. PERCEPTIONS OF STIGMATIZATION BY OTHERS FOR SEEKING  
HELP (PSOSH)- MOTHER, CHINESE VERSION**  
(Vogel et al., 2009)

请回答以下关于您母亲的问题。如果您和您的母亲没有任何联系，但和其他成年女性共同居住在一起（比如，继母），请回答以下关于那位成年人的问题。

如果您和您的母亲没有任何联系，并且没有其他成年女性和您一起居住，以下问题请留空白。

想象这个情景：您遇到一个关系到个人，学业，或者事业的问题，您自己没办法解决。如果您想要针对这个问题接受咨询服务，有多大的可能性您觉得您的母亲会\_\_\_\_\_

1. 有負面的回應
2. 有負面的想法
3. 把你視為一個情緒嚴重受困擾的人
4. 覺得你比以前差
5. 認為你對其他人會構成威脅

**APPENDIX H. PERCEPTIONS OF STIGMATIZATION BY OTHERS FOR SEEKING  
HELP (PSOSH) - FATHER**  
(Vogel et al., 2009)

Please answer the following questions about your father. If you do not have any contact with your father, but there is another adult of the same gender living with your house (for example, a stepfather) then please answer the questions about that other adult.

If you have no contact with your father, and there is not another adult of that same gender with whom you live, then leave the questions below blank.

Imagine you had personal, academic or vocational issues that you could not solve on your own. If you sought counseling for service for this issue, to what degree do you believe that your father would \_\_\_\_.

**1 = Not at all, 2 = A little, 3 = Some, 4 = A lot, 5 = A great deal**

1. React negatively to you
2. Think bad things of you
3. See you as seriously disturbed
4. Think of you in a less favorable way
5. Think you posed a risk to others

**APPENDIX I. PERCEPTIONS OF STIGMATIZATION BY OTHERS FOR SEEKING  
HELP (PSOSH)- FATHER, CHINESE VERSION**  
 (Vogel et al., 2009)

请回答以下关于您父亲的问题。如果您和您的父亲没有任何联系，但和其他成年男性共同居住在一起（比如，继父），请回答以下关于那位成年人的问题。

如果您和您的父亲没有任何联系，并且没有其他成年男性和您一起居住，以下问题请留空白。

想象这个情景：您遇到一个关系到个人，学业，或者事业的问题，您自己没办法解决。如果您想要针对这个问题接受咨询服务，有多大的可能性您觉得您的父亲会\_\_\_\_\_

1. 有負面的回應
2. 有負面的想法
3. 把你視為一個情緒嚴重受困擾的人
4. 覺得你比以前差
5. 認為你對其他人會構成威脅

**APPENDIX J. INTENTION TO SEEK COUNSELING INVENTORY (ISCI)**  
(Cash et al., 1975)

Below is a list of issues people commonly bring to counseling. How likely would you be to seek counseling if you were experiencing these problems? Please circle the corresponding answer.

**1 = Very unlikely to 6= Very likely**

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

**APPENDIX K. INTENTION TO SEEK COUNSELING INVENTORY (ISCI)**  
**CHINESE VERSION**  
(Cash et al., 1975)

以下狀況是人們在接受心理輔導時常常提出的問題。你認為當你也面對這些問題時，有多大可能會尋求輔導或心理治療？

1 (非常不可能) 至 6 (非常可能)

1. 人際關係問題
2. 對性的疑慮
3. 抑鬱
4. 與父母的衝突
5. 睡眠困難
6. 自卑
7. 難與朋友相處
8. 自我認識
9. 孤單
10. 約會的困難

**APPENDIX L. STUDY INVITATION EMAIL**

Dear XXX,

My name is Spury Surapaneni and I am an Asian-American student at Iowa State University. I moved here when I was 8 years old and my parents are immigrants to this country. I am conducting a study related to parental influence on college students seeking help. I need your help to complete this study so we can create interventions that will help rather than hinder people from seeking help. The survey will take between 5-10 minutes to complete.

You must be 18 years or older and self-identify as Asian, Asian-American, or Caucasian to participate in this study.

To participate in this study, please click on this link:

[https://iastate.qualtrics.com/SE/?SID=SV\\_74b2aYtAjTzYk85](https://iastate.qualtrics.com/SE/?SID=SV_74b2aYtAjTzYk85) (English Version)

[https://iastate.qualtrics.com/SE/?SID=SV\\_03fcxtOfmUwQtYF](https://iastate.qualtrics.com/SE/?SID=SV_03fcxtOfmUwQtYF) (Chinese Version)

As a thank you for the time and effort you'll spend, you can enter a drawing for a \$15 gift card (the probability of winning is 1 in 50). I will contact the winners once I have finished all data collection.

Please feel free to email me ([ssura@iastate.edu](mailto:ssura@iastate.edu)) if you have any questions or concerns and your help is greatly appreciated!

Thank you,  
Spury Surapaneni  
Department of Psychology, Iowa State University

## APPENDIX M. REMINDER EMAIL

Dear XXX,

This is a reminder email. If you have not completed this survey, please consider taking it. If you have, thank you! You may ignore the rest of this message

My name is Spury Surapaneni and I am an Asian-American student at Iowa State University. I moved here when I was 8 years old and my parents are immigrants to this country. I am conducting a study related to parental influence on college students seeking help. I need your help to complete this study so we can create interventions that will help rather than hinder people from seeking help. The survey will take between 5-10 minutes to complete.

You must be 18 years or older and self-identify as Asian, Asian-American, or Caucasian to participate in this study.

To participate in this study, please click on this link:

[https://iastate.qualtrics.com/SE/?SID=SV\\_74b2aYtAjTzYk85](https://iastate.qualtrics.com/SE/?SID=SV_74b2aYtAjTzYk85) (English Version)

[https://iastate.qualtrics.com/SE/?SID=SV\\_03fcxtOfmUwQtYF](https://iastate.qualtrics.com/SE/?SID=SV_03fcxtOfmUwQtYF) (Chinese Version)

As a thank you for the time and effort you'll spend, you can enter a drawing for a \$15 gift card (the probability of winning is 1 in 50). I will contact the winners once I have finished all data collection.

Please feel free to email me ([ssura@iastate.edu](mailto:ssura@iastate.edu)) if you have any questions or concerns and your help is greatly appreciated!

Thank you,  
 Spury Surapaneni  
 Department of Psychology, Iowa State University

## APPENDIX N. INFORMED CONSENT

**Title of Study:** Parental Influences in Seeking Help

**Investigators:** Spury Surapaneni, Principal Investigator

Lisa Larson, Ph.D., Supervisor

This is a research study. Please take your time reviewing the document before volunteering to participate. Please feel free to ask questions at any time.

Please be informed that you must be 18 years or older and self-identify as Asian, Asian-American, or Caucasian to participate in this study.

### **INTRODUCTION**

The purpose of this study is to better understand how parents help or hinder their college-aged children from seeking professional help for personal and academic concerns.

### **DESCRIPTION OF PROCEDURES**

If you agree to participate, you will complete several surveys. First, you will be requested to answer some demographic information. Following that, you will be asked questions regarding your perspective and your parents' perspective on factors that facilitate or limit professional help-seeking.

You may skip any question(s) that you wish not to answer or makes you feel uncomfortable, without any penalty. For the information to be beneficial to the study, please complete as many items as you can.

The overall survey will take no more than 30 minutes to complete. Please be informed that you *will not* be able to save your responses and finish at another time. If you plan to complete the survey you must do so within a few hours of opening the survey.

### **RISKS**

The risks for participating in this survey are minimal and equivalent to risks one may encounter on a daily basis. If you should feel uncomfortable or have concerns regarding the survey, please contact the primary investigator, Spury Surapaneni (email: [ssura@iastate.edu](mailto:ssura@iastate.edu)) or the study supervisor, Lisa Larson, Ph.D. (email: [lmlarson@iastate.edu](mailto:lmlarson@iastate.edu)).

### **BENEFITS**

There are no direct benefits to you for participating in this study. However, it is hoped that the information gained in this study will contribute to the understanding of the influence of parents on college students' help-seeking intentions and behaviors.



## **COSTS AND COMPENSATION**

There are no costs to participating in the study. If you choose to participate, you can enter a drawing for a \$15 VISA gift card (the probability of winning is 1 in 50). The drawing will occur after all data has been collected. The winner will be notified via email and will fill out the research participation receipt. Information regarding the required paperwork may be obtained from the Controller's Department at; 515-294-2555 or <http://www.controller.iastate.edu>. There is no other form of compensation for this study.

## **PARTICIPANT RIGHTS**

Your participation in this study is completely voluntary and you may refuse to participate or leave the study at any time. This will not result in a penalty of not being able to participate in the drawing.

## **CONFIDENTIALITY**

Records identifying participants will be kept confidential to the extent permitted by applicable laws and regulations and will not be made publicly available. In addition, federal government regulatory agencies, auditing departments of Iowa State University, and the Institutional Review Board (a committee that reviews and approves human subject research studies) may inspect and/or copy your records for quality assurance and data analysis. These records may contain private information.

To ensure confidentiality to the extent permitted by law, the following measures will be taken:

- Identifying information will not be collected. Therefore, if results are published, your identity will remain confidential.
- Only the Principal Investigator and the research team will have access to the data.
- All data will be kept on a password-protected desktop computer within a locked room.

## **QUESTIONS OR PROBLEMS**

You are encouraged to contact the principal investigator with questions at any time during this survey.

- For further information about the study, contact Spury Surapaneni (email: [ssura@iastate.edu](mailto:ssura@iastate.edu)) or Lisa Larson, Ph.D. (email: [lmlarson@iastate.edu](mailto:lmlarson@iastate.edu)).
- If you have any questions about the rights of research subjects or research-related injury, please contact the IRB Administrator, (515) 294-4566, [IRB@iastate.edu](mailto:IRB@iastate.edu), or Director, (515) 294-3115, Office for Responsible Research, Iowa State University, Ames, Iowa 50011.

\*\*\*\*\*

## PARTICIPANT CONSENT

By clicking on the “I agree to participate” button below, you are indicating that you voluntarily agree to participate in this study, that the study has been explained to you, that you have been given the time to read the document, and that your questions have been satisfactorily answered. Please print this page if you would like to retain a copy of the consent form.

- I agree to participate, and I am 18 years old or older.
- I disagree to participate.

## APPENDIX O. IRB APPROVAL MEMO



Institutional Review Board  
 Office for Responsible Research  
 Vice President for Research  
 2420 Lincoln Way, Suite 202  
 Ames, Iowa 50014  
 515 294-4566

**Date:** 10/28/2016

**To:** Spurty Surapaneni  
 W216 Lagomarcino

**CC:** Dr. Lisa Larson  
 W216 Lagomarcino Hall

**From:** Office for Responsible Research

**Title:** Parental Role in Seeking Help

**IRB ID:** 16-320

**Study Review Date:** 10/27/2016

The project referenced above has been declared exempt from the requirements of the human subject protections regulations as described in 45 CFR 46.101(b) because it meets the following federal requirements for exemption:

- (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey or interview procedures with adults or observation of public behavior where
  - Information obtained is recorded in such a manner that human subjects cannot be identified directly or through identifiers linked to the subjects; or
  - Any disclosure of the human subjects' responses outside the research could not reasonably place the subject at risk of criminal or civil liability or be damaging to their financial standing, employability, or reputation.

The determination of exemption means that:

- You do not need to submit an application for annual continuing review.
- You must carry out the research as described in the IRB application. Review by IRB staff is required prior to implementing modifications that may change the exempt status of the research. In general, review is required for any modifications to the research procedures (e.g., method of data collection, nature or scope of information to be collected, changes in confidentiality measures, etc.), modifications that result in the inclusion of participants from vulnerable populations, and/or any change that may increase the risk or discomfort to participants. Changes to key personnel must also be approved. The purpose of review is to determine if the project still meets the federal criteria for exemption.

Non-exempt research is subject to many regulatory requirements that must be addressed prior to implementation of the study. Conducting non-exempt research without IRB review and approval may constitute non-compliance with federal regulations and/or academic misconduct according to ISU policy.

**Detailed information about requirements for submission of modifications can be found on the Exempt Study Modification Form.** A Personnel Change Form may be submitted when the only modification involves changes in study staff. If it is determined that exemption is no longer warranted, then an Application for Approval of Research Involving Humans Form will need to be submitted and approved before proceeding with data collection.

Please note that you must submit all research involving human participants for review. **Only the IRB or designees may make the determination of exemption**, even if you conduct a study in the future that is exactly like this study.

Please be aware that **approval from other entities may also be needed**. For example, access to data from private records (e.g. student, medical, or employment records, etc.) that are protected by FERPA, HIPAA, or other confidentiality policies requires permission from the holders of those records. Similarly, for research conducted in institutions other than ISU (e.g., schools, other colleges or universities, medical facilities, companies, etc.), investigators must obtain permission from the institution(s) as required by their policies. **An IRB determination of exemption in no way implies or guarantees that permission from these other entities will be granted.**

Please don't hesitate to contact us if you have questions or concerns at 515-294-4566 or [IRB@iastate.edu](mailto:IRB@iastate.edu).