

2013

## CULTURAL FACTORS, STIGMA, STRESS, AND HELP-SEEKING ATTITUDES AMONG COLLEGE STUDENTS

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CULTURAL FACTORS, STIGMA, STRESS, AND HELP-SEEKING ATTITUDES  
AMONG COLLEGE STUDENTS

BY

RADHIKA V. PASUPULETI

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

IN

PSYCHOLOGY

UNIVERSITY OF RHODE ISLAND

2013

DOCTOR OF PHILOSOPHY

OF

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2013

## **ABSTRACT**

The study is examining the role of cultural and psychological factors that predict attitudes towards seeking mental health treatment. Given the role of treatment in reducing emotional distress, it is important to understand the issues people consider when exploring mental health treatment options. Specifically, constructs of stigma and acculturation were explored in relation to both attitudes toward and intentions to seek mental health treatment. Undergraduate and graduate students (246 women, 82 men; 237 White, 89 Nonwhite) recruited from two state colleges and a community college participated in an online survey assessing demographics as well as measures of stigma, acculturation, ethnic identity, racial stressors, mental health, attitudes towards help-seeking, and actual help-seeking. Stigma was found to be a significant mediator of acculturation (measured as relationship to heritage culture and ethnic identity) and attitudes towards seeking mental health treatment, lending support to the importance of not using just race/ethnicity as a proxy variable for culture when investigating barriers to seeking mental health treatment. In addition, not all types of stigma were significant predictors; while public and personal stigmas were significant, self-stigma was not a significant factor. Since public stigma and personal stigma are speculated to be the first part of the cognitive process associated with stigma, efforts should be made to develop interventions at the public stigma level before the stigma is internalized. Greater personal stigma for men and greater cultural stigma for ethnic minority participants warrant further investigation into the different types of stigma. In addition, racial/ethnic minority participants reported greater race-related stress than their White

counterparts; race-related stress was associated with increased anxiety and stress symptoms. For the racial/ethnic minority participants, heritage acculturation and ethnic identity were protective factors, in that greater heritage acculturation was associated with lower levels of stress and stronger ethnic identity was associated with increased intentions towards seeking counseling. Furthermore, future research in this area can elucidate the complex measurement issues with the constructs of acculturation and stigma in college students.

## ACKNOWLEDGMENTS

I would like to take this opportunity to thank my committee members, all of whom are strong role models of women in academia. I appreciate the support offered by Dr. Kathryn Quina, Dr. Patricia Morokoff, Dr. Jasmine Mena, and Dr. Susan Brand. Dr. Quina, thank you for the strong mentorship, encouragement, patience, sense of humor, great feedback, and warmth. I really enjoyed learning from you and I am looking forward to a continued relationship. Dr. Morokoff, I have learned a lot from working with you in multiple roles over the years about academia and social justice and I hope to continue that learning in the future. Dr. Jasmine Mena, you have been a great mentor both personally and professionally and I am looking forward to continuing our relationship. Dr. Susan Brand, thank you for your support, thoughtful comments, and encouraging smile.

In addition, I would like to express my deepest gratitude to amma (mother), nanna (father), and akka (sister) for all their support. Amma and nanna, your sacrifices, immigration journey, and social justice efforts will always continue to inspire me. Akka, I really could not have met this milestone without your unwavering support and faith.

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# CHAPTER 1

## INTRODUCTION

Approximately 11 million (4.8 percent) adults in the United States suffered from serious mental illness in 2009 (Substance Abuse Mental Health Services Administration, 2012; SAMHSA). Serious mental illness was defined as serious functional impairment in all or any of the following domains: work, school, home, community. In addition, approximately 45 million (19.9 percent) adults in the United States suffered from any mental illness in 2009 (SAMHSA, 2012). Of those with serious mental illness, 39.8 % have not received treatment and of those with any mental illness, 62.1% have not received treatment. Given the empirically supported treatments for various mental illnesses, the number of untreated individuals is a pressing concern.

Kessler et al. (1994) reported that when the need was recognized, participants faced the following barriers: situational barriers, such as inconvenience or being unsure of where to seek care (52%), financial barriers (46%), and believing that treatment is not effective (45%). Furthermore, 72% of those who fail to seek treatment report wanting to take care of the problem on their own. Similar results were found for adolescents; in one study only one third of adolescents suffering from a mental illness received treatment (Merikangas et al., 2011). In addition, non-Hispanic Black and Hispanic adolescents were less likely to receive treatment for mood and anxiety disorders compared to White adolescents.

There are many individual, familial, and societal costs associated with untreated mental illness, including lower educational attainment (Kessler, Foster, Saunders, & Stang, 1995), loss of productivity at work (Adler et al., 2006; Kessler & Frank, 1997), and the exacerbation of medical illness, such as heart disease, diabetes, and hypertension (Katon & Ciechanowski, 2002). Yet the National Comorbidity Study found that fewer than 40% of people with serious mental illness (defined by impairment across DSM-IV diagnoses) receive treatment for serious mental illness (Kessler et al., 1994). Although underutilization of mental health services may be a widespread problem, it is particularly salient for racial/ethnic minorities. Research indicates that mental health care disparities among ethnic minorities are prevalent and they are a pressing issue to address (Miranda, Nakamura, & Bernal, 2003).

Acculturation and enculturation, family, collectivism and individualism, stigma, cultural mistrust, help-seeking, religion and spirituality, and finally variability in manifestation and interpretation of distress are key cultural variables in understanding underutilization among ethnic minorities (Goldston et al., 2008). Scheppers, van Dongen, Dekker, Geertzen, and Dekker (2006) reviewed 54 articles to determine the barriers of using health services for ethnic minorities. Scheppers et al. examined barriers at the patient (e.g., sex, ethnicity, SES), provider (e.g., sex, skills, and attitudes), and system (e.g., policy, organizational factors) levels. The review includes quantitative studies (n = 28), qualitative studies (n = 10), combined studies (qualitative and quantitative; n = 6), and other studies (literature reviews and published essays; n = 8). Due to the heterogeneity in the review studies, the authors chose to identify barriers, but the barriers are not necessarily empirically tested.

Barriers at the individual level were identified as being young, unmarried, living in disadvantaged neighborhoods (i.e., high crime rates), life style factors, such as an unhealthy diet or substance use, and poor familial or social support. In addition, the authors identified that ethnic minorities' perception about symptoms and knowledge of disease may be based on cultural values and these perceptions may result in different presentations of symptoms, which may result in diagnosing difficulties. Duration of stay in the United States had mixed results, with some studies indicating that recent immigrants face greater barriers, while others do not indicate so. Low level of acculturation (i.e., separation or marginalization) is viewed as a potential barrier to seeking health services, with associated barriers such as being uninsured. Language barriers represent difficulties potentially affecting patient confidence, ability to express symptoms, providers' ability to understand such symptoms, overreliance on the family member, etc. The authors also identified other potential patient level barriers, such as gender, ethnicity, education, SES, duration of stay (in the country), language skills, health beliefs and attitudes (i.e., a holistic view of health, supernatural beliefs, etc.), knowledge of health services, health insurance benefits, immigration status, time availability, stress, availability and access to services, traditional remedies (in delaying seeking health services), perceived illness and perceived cause both by the individual and the family.

The present study examines a structural model predicting attitudes towards mental health help-seeking, with acculturation and stress as predictors, and stigma as a mediator. Additional analyses will examine these factors and group comparisons by racial/ethnic group and gender.

## CHAPTER 2

### REVIEW OF LITERATURE

#### **Stigma**

One of the key variables investigated in mental health utilization is stigma. In a World Mental Health Survey, perceived stigma about mental illness was found to be a worldwide phenomenon among individuals with common mental illness, particularly comorbid depression and anxiety, suggesting that stigma of mental illness is not limited to a particular cultural group and/or only to severe mental illness (Alonso et al., 2008). Mental health stigma is described as a cognitive-behavioral process manifested in three different ways: public stigma, personal stigma, and label avoidance (Corrigan & Wassel, 2008). Public stigma is defined as negative stereotypes about people with mental illness, such as perceiving them as dangerous and weak and blaming them for their problems or perceiving them as childlike and in need of others to take care of them. Self-stigma is defined as the internalization of public stigma (Link, 1987). Self-stigma can have an effect on self-esteem, self-efficacy and result in underachieving or in avoiding growth and independence altogether (Corrigan & Wassel, 2008). Finally, label avoidance is when individuals who are suffering from psychiatric conditions do not seek treatment so they are not labeled as mentally ill, thereby escaping the prejudice and discrimination associated with public and self-stigma (Corrigan & Wassel, 2008). Label avoidance is not a variable of interest in the current study since this study does not focus on a psychiatric sample. Another form of stigma is personal stigma or personal attitudes towards mental illness (Griffiths, Christensen, Jorm, Evans, & Groves, 2004). Personal stigma applies to those

individuals who do not have mental illness or who are not yet aware of it, unlike self-stigma (Eisenberg, Downs, Golberstein, & Kivim, 2009). The first step in the stigma cycle is awareness of public stigma, followed by the formation of personal stigma, and then an evaluation of one's own status of mental illness (Corrigan, Watson, & Barr, 2006).

Personal stigma has been negatively associated with help seeking indicators, such as perceived need of medication or therapy and actual use of medication or therapy, and also with nonprofessional support (Eisenberg, Marilyn, Ezra, & Zivin, 2009). However, Eisenberg et al. did not find a significant association between public stigma and help seeking. In addition, higher self-stigma was found among students who were male, younger, Asian, international, more religious, or from a low socioeconomic status. Barney, Griffiths, Jorm, and Christensen (2006) did find a significant and negative relationship between public stigma and help-seeking attitudes, and between self-stigma and help-seeking attitudes. Furthermore, participants who endorsed greater self-stigma towards seeking professional services were less likely to actually seek services when followed up over a two month period, while participants who had sought help reported significantly less self-stigma before seeking help (Vogel, Wade, & Haake, 2006), indicating that stigma has predictive value in actual use of professional services. Many studies have found empirical support for a relationship between stigma and different aspects of treatment. In a clinical sample, greater public stigma has been found to be associated with lower treatment adherence (Sirey, et al., 2001a) and with premature termination (Sirey, et al., 2001b). In addition, individuals with stigma of mental illness were less likely to seek or use

mental health services (Kessler et al., 2001; Vogel, Wester, Wei, & Boysen, 2005). The research on stigma suggests that the relationship between public stigma, personal stigma, and self-stigma to help-seeking needs further elucidation. Further clarifying these relationships can inform the development of stigma-reduction interventions, thereby increasing mental health treatment utilization.

In addition, the Office of Surgeon General 2001 report indicates that minority groups are disproportionately represented in homeless and incarcerated populations, indicating more systemic issues unique to those groups. Although, Hispanics and Non-Hispanic Blacks were not found to have a greater lifetime risk for psychiatric disorders compared to Non-Hispanic Whites; both groups tend to have more persistence in disorders, particularly with mood disorders for Hispanics and mood and anxiety disorders for Non-Hispanic blacks (Breslau, Kendler, Su, Gaxiola-Aguilar, & Kessler, 2005). Some potential reasons for disparities include socio-economic status, perceived discrimination, and stress (Wang et al., 2005; Williams, Yu, Jackson, & Anderson, 1997). A factor in disparities could be that individuals from ethnic minorities may perceive symptom severity differently (Okazaki, Kallivayalil, & Sue, 2002). Another key variable in persistence of disorders may be the lower rate of treatment among racial-ethnic minorities (Wang et al., 2005). In addition, ethnic minorities have consistently been found to either delay seeking treatment until a condition is chronic, being reluctant to using mental health services, and having poorer access to services (USDHHS, 2001).

In a study assessing stigma in an urban community college sample, African Americans and Asians were found to have greater stigma towards mental illness than

Whites; Latinos were found to have less stigma than Whites (Rao, Feinglass, & Corrigan, 2007). Rao et al. proposed that these disparities were due to African Americans having more negative attitudes toward mental illness compared to other groups due to stressors, such as racism and other social inequalities; they did not speculate on results for Asians or Latinos. In a qualitative study, acculturation, difficulty accessing services, and stigma played a major role in being deterrents of help-seeking behaviors among Chinese immigrants in New York City (Chung, 2010). Among a clinical population of depressed older African Americans, high levels of public and self-stigma were associated with not being in treatment and not having positive attitudes towards treatment (Conner, 2010). Stigma was analyzed as a mediator in a study assessing attitudes towards psychological counseling in college aged South Asian and White students (Loya, Reddy, & Hinshaw, 2010). White students were found to have more positive attitudes towards counseling than South Asian students. In addition, increased self-stigma in South Asians partially mediated and accounted for 32% of the difference in attitudes towards psychological services. The authors indicate the need to study cultural variables such as acculturation and its relationship to stigma and help-seeking attitudes.

In a qualitative study investigating panic disorder treatment of low-income African Americans, it was found that concerns about social stigma and concerns about confiding in others in the community, as well a dearth of information of panic disorder, were indicated as personal reasons to not seek treatment. Similarly, at the community level, participants demonstrated limited information about mental illness and stigma against those who seek treatment or have symptoms as “weak” or



“spiritually flawed,” and these perceptions were identified as deterrents in seeking treatment (Johnson, Mills, DeLeon, Hartzema, & Haddad, 2009). Similarly, among low-income depressed women, White participants were more likely to perceive a need for care than black or Latina women, which was also found to decrease the likelihood of expressing a need for help across all ethnic groups (Nadeem, Lange, & Miranda, 2009). An examination of the same dataset revealed that compared to US-born Whites, Black and Latina women (both immigrant and US-born) were more likely to report stigma concerns and were less likely to want treatment, with the exception of immigrant Latinas who were more likely to want treatment compared to US-born Whites. However, only perceived stigma was examined, and not self-stigma. Stigma was found to be a treatment barrier for African Americans compared to Caucasians in other research as well (Alvidrez, Snowden, & Kaiser, 2008; Snowden, 1998). Overall, there appear to be differences in the stigma against seeking mental health services across racial/ethnic groups.

Another factor explored within the context of stigma is gender. Stigma has been theorized to explain the systemic differences, with males having a lower rate of mental healthcare utilization (Wang et al., 2005). Male gender was positively associated with stigma avoidance and mistrust/fear of the system (Ojeda & Bergstresser, 2008). In the same study, it was found that White male status was specifically significantly associated with stigma avoidance, mistrust/fear of the system, and negative attitudes towards care compared to other racial/ethnic groups, which is in contrast to the literature that racial/ethnic minorities display greater stigma. These conflicting results stress the importance of examining the intersection of

race/ethnicity and gender and its relationship to stigma of seeking mental health treatment.

Together these different forms of stigma toward mental illness results in delayed seeking of mental health services and treatment compliance, which can result in negative long-term outcomes (Corrigan, 2004; Corrigan & Wassel, 2007). Although stigma against seeking mental health services is a widespread problem among all Americans, it is a particularly salient issue for racial/ethnic minorities where factors such as language barriers, acculturation, and access to services may make stigma even more salient (Gary, 2005). It has recently been theorized that ethnic minorities face “double stigma,” where negative attitudes towards mental health treatment are compounded by the negative attitudes (stereotypes) and discrimination that ethnic minorities already face, thereby creating a delay in treatment seeking or aborted treatment, resulting in greater morbidity and mortality (Gary, 2005). The present study will assess three forms of stigma and examine it in group comparisons by gender and ethnicity/race, as a predictor of several mental health variables, and as a mediating variable in models of mental health help-seeking.

### **Acculturation**

In psychology, acculturation is often studied at the individual level. Acculturation occurs when groups of individuals from different culture are in contact, with changes resulting in one or both of the cultures (Redfield, Linton, & Herskovits, 1936). A popular framework used to organize these changes is a bilinear model proposed by Berry (1989), where an individual’s relationship with both the mainstream culture and the culture of origin is considered. This model is in contrast to

the unilinear model, which contends that an individual's relationship to his/her heritage culture (culture one is raised in or influenced by) is dependent on his/her relationship to mainstream culture (culture of the dominant society where individual resides). For example, if an individual strongly identifies with his/her heritage culture then a unilinear model implies a low identification with the dominant culture. A unilinear perspective assumes the loss of traditional values at the expense of accruing dominant values or the choice to retain traditional values and not adapt dominant values (Ryder, Alden, & Paulhus, 2000). The unilinear perspective has been critiqued for not accurately allowing for the many possibilities of acculturation, specifically biculturalism (For review, Miller, 2007; Rudmin, 2003, 2009). In contrast, Berry et al. (1989) categorized acculturation into four different types: integration (high heritage, high mainstream), assimilation (low heritage, high mainstream), separation (high heritage, low mainstream), and marginalization (low heritage, low mainstream). Integration is associated with lower psychopathology and marginalization is associated with higher psychopathology (Berry, 2007).

Acculturation has been found to have a significant association in the following areas of research: eating disorders (e.g., Jennings, Forbes, McDermott, & Hulse, 2006; Soh et al., 2007), suicidality (e.g., Kennedy, Parhar, Samra, & Gorzalka, 2005; Lau, Jernewall, Zane, & Myers, 2002;), risky behaviors (e.g., Schwartz et al, 2011), personality factors, adjustment, and achievement (Suinn, 2010). Acculturation has mostly been studied with immigrant populations from racial/ethnic backgrounds; however it has also been investigated with US born racial/ethnic minorities, such as African Americans (e.g., Obasi & Leong, 2010).

In addition, the literature on acculturation has found that acculturation is significantly associated with the many different aspects of the therapy process. In Asian American college students, a significantly positive correlation was found between acculturation and students' ratings of the counseling process (Wang & Kim, 2010). Among Chinese Americans, acculturation, among other cultural factors, was found to be a significant predictor of attitudes towards seeking professional psychological help (Tata & Leong, 1994). Furthermore, acculturation was related to willingness to seek counseling in both Asian Americans (Atkinson & Gim, 1989) and recent Greek and Italian immigrants (Ponterotto et al., 2001). In all these studies, higher acculturation to US culture was positively related to attitudes towards counseling or counselors.

Recently, acculturation and stigma have been investigated to help elucidate their relationship to the underutilization of mental health treatment. Ting and Hwang (2009) examined acculturation, stigma tolerance, and help-seeking attitudes. Stigma tolerance is defined as being aware of the cultural group's stigma. Low stigma tolerance is indicated by being aware of and worried about the cultural group's stigma towards help-seeking. In contrast, high stigma tolerance is being aware of, but not worried about the group's stigma, if seeking help. These results indicate that the culture of origin may influence one's stigma towards help-seeking. The authors found that acculturation (measured bilinearly) did not have a relationship with help-seeking attitudes; however, stigma tolerance was predictive of help-seeking behaviors. However, they note that the college sample in this study did not reflect low levels of acculturation and there was not a varied distribution of acculturation. Given the

relationship between acculturation and stigma, the current study will include a measure of cultural stigma, defined as examining existing stigma items, from the perspective of the participant on how he/she perceives his/her own community perspective of mental health stigma.

### **Stress**

Perceived discrimination and stress have been implicated in mental health treatment seeking by racial/ethnic minorities (Wang et al., 2005; Williams, Yu, Jackson, & Anderson, 1997). In addition, perceived discrimination has been associated with mental and physical health problems (Lee et al., 2009; Mossakowski, 2003). Specifically, perceived racism significantly predicted number of poor mental and physical health days (Anderson, 2013). Gary (2005) posits that perceived discrimination/stressors associated with race and the stigma associated with mental health treatment contributes to decreased mental health seeking in ethnic minorities. In the current study, perceived discrimination is measured by a questionnaire on race-related stressors.

### **Additional Factors**

Help-seeking behaviors have been linked to gender (Rickwood & Braithwaite, 1994; Galdas, Cheater, & Marshall, 2005), with men less likely to seek help than women. Other key factors to consider are the history of mental health treatment (Deane, Skogstad, & Williams, 1999; Vogel, Wester, Wei, Boysen, 2005), level of distress, with less willingness to seek treatment at moderate levels of distress and cultural factors (Hsu & Alden, 2008; Menke & Flynn, 2009), intentions and attitudes towards mental help seeking (Bayer & Peay, 1997; Codd & Cohen, 2003; Vogel,

Wester, Wei, Boysen, 2005). Help-seeking attitudes have been associated with actual mental health treatment use and presence of mood disorder, (ten Have, de Graaf, Ormel, Vilagut, Kovess, & Alonso, 2010) and positively correlated with level of distress (Komiya, Good, & Sherrod, 2000). The present study will also investigate the relationship among these key variables.

### **Overview of the Present Study**

In summary, both acculturation and stigma have been associated with help seeking attitudes, but they have been studied together only on a limited basis. Given the mental health disparities facing racial/ethnic minorities and the greater disease burden, it may be beneficial to explore both psychological factors, such as stigma and cultural factors, such as acculturation and race-related stressors that may play a role in barriers to care. The current study extends the literature by examining acculturation, race-related stressors, self-stigma, public stigma, and attitudes in a comprehensive structural model. The model will allow examination of mediators and moderators. In particular, while decreased stress and acculturation to mainstream culture is expected to predict more positive help-seeking attitudes, this relationship will be mediated by stigma about mental health treatment, which will be associated with more negative attitudes. All results should be interpreted in the context of systemic factors such as access to care.

### *Research Hypotheses*

- *Hypothesis 1:* In a comparison of the three structural models (Figures 1, 2, and 3) for all participants, the full model (Figure 3) will be the best-fitting model: the predictors of acculturation and stress will be directly related to

the outcome variable of help-seeking attitudes, while stigma about mental health treatment will also serve to mediate this relationship between acculturation and help-seeking attitudes.

- *Hypothesis 1a:* Race-related stress will be a significant negative predictor of help-seeking attitudes and a significant positive predictor of stigma.
- *Hypothesis 1b:* Decreased identification with heritage culture and lower identification with ethnic identity will be significant and positive predictors of help-seeking attitudes.
- *Hypothesis 1c:* Decreased identification with heritage culture and lower identification with ethnic identity will both be associated with decreased stigma about mental health treatment; in all three models, the direct pathway between acculturation and stigma is expected to be significant and positive in direction.
- *Hypothesis 1d:* Stigma will be significantly and negatively related to help-seeking attitudes.
- *Hypothesis 2:* For White participants, heritage and mainstream acculturation, ethnic identity, and race-related stressors will not be significant predictors of depression, anxiety, and stress nor of attitudes towards help seeking and/or intentions towards seeking counseling. Cultural factors will not be significant predictors of stigma. In addition, increased stigma (all types) will significantly predict lower attitudes towards help seeking and lower intentions towards seeking counseling.

- *Hypothesis 3:* For Nonwhite participants, both decreased heritage and mainstream acculturation, decreased ethnic identity and increased race-related stressors will be significant predictors of increased depression, anxiety, and stress, increased stigma (all types), and lower attitudes of help seeking and lower intention of seeking counseling. In addition, increased stigma (all types) will significantly predict lower attitudes towards help seeking and lower intentions towards seeking counseling.
- *Hypothesis 4:* White male and female participants will differ from Nonwhite male and female participants in the following ways:
  - *Hypothesis 4a:* White participants will have lower levels of heritage acculturation, ethnic identity, race-related stress and greater levels of mainstream acculturation, for both men and women.
  - *Hypothesis 4b:* White and female participants will have lower levels of self-stigma, public stigma, personal stigma, and cultural stigma.
  - *Hypothesis 4c:* White and female participants will have greater attitudes towards help seeking and greater intentions to seek counseling.
  - *Hypothesis 4d:* White and male participants will have lower levels of depression, anxiety, and stress.
- *Hypothesis 5:* Nonwhite male and female participants will differ from White male and female participants in the following ways:



- *Hypothesis 5a:* Nonwhite participants will have greater levels of heritage acculturation, ethnic identity, race-related stress and lower levels of mainstream acculturation, for both men and women.
- *Hypothesis 5b:* Nonwhite and male participants will have greater levels of self-stigma, public stigma, personal stigma, and cultural stigma.
- *Hypothesis 5c:* Nonwhite and male participants will have lower attitudes towards help seeking and lower intentions to seek counseling.
- *Hypothesis 5d:* Nonwhite and female participants will have greater levels of depression, anxiety, and stress.

## CHAPTER 3

### METHODOLOGY

#### **Participants**

Participants were recruited through offering extra credit in Psychology courses at a university in New England, postings on email listservs reaching college students and instructors, and direct requests to faculty from other colleges to forward it to their students. Additional efforts to recruit for racial/ethnic minority students were made by coordinating with campus centers focused on multiculturalism. Participants were offered the opportunity to enter into a raffle prize drawing one of two \$25 or a \$50 gift card.

The initial sample was 427 undergraduate and graduate students recruited from two state colleges and a community college. Of the 427 participants, 34 participants were excluded due to only demographic information being included or the survey being started, but no data filled in. Another 65 participants were excluded from the final analysis, since total scores for major measures in the survey could not be calculated due to substantial portions of the missing items. The final sample was 326 undergraduate and graduate students. Within these surveys, a few missing items with a random pattern were present. The range of missing data across all the surveys ranged from .6%-2.4%. However, to ensure complete data in the final analysis, expectation maximization imputation technique was used to fill the missing data. The age range of the participants was from 18-63 (Mean=20.54; SD=4.73). The gender breakdown was as follows: 75 % Female ( $n = 246$ ) and 25 % Male ( $n = 82$ ). The racial/ethnic background of the sample was as follows: 72.7% White ( $n = 237$ ) and 27.3%

Nonwhite ( $n = 89$ ); approximately 51.7% are Hispanic/Latino ( $n = 46$ ). All participants indicated speaking English fluently and the most commonly spoken second language was Spanish.

## **Measures**

The full survey is found in Appendix A.

**Demographics.** 21 questions regarding age, ethnicity, sex, marital status, education level, generation level, and employment status were asked. In addition, participants were asked to indicate the language spoken at home and their history of mental health treatment/current intention.

**General Help-Seeking Questionnaire (GHSQ; Deane, Wilson, & Ciarrochi, 2001).** This measure consists of 15 items in matrix format that assess a problem-type and the source of help on a 7-point Likert-scale rating of “extremely unlikely” to “extremely likely,” with a higher score indicating higher intention to seek help. The scores range from 11 to 77. Both the type of problem and the source of help can be modified according to the research project; in the original version, emotional or personal problem and suicidal thoughts were evaluated. In the current study, suicidal thoughts were not evaluated due to potential ethical concerns. Two additional sources of help were added for this study: minister or religious leader and chat rooms. The psychometrics of the original version were assessed by administering the questionnaire to high school students, ages 12-19 ( $n=218$ ; Wilson, Deane, Ciarrochi & Rickwood, 2005). Cronbach’s alpha was .85 and Cronbach’s alpha for test-retest reliability was .92, indicating good scale reliability. Convergent validity was established by positive correlation between intention to seek counseling and

self-reported quality of past mental health treatment. Divergent validity was established by a negative correlation between intention to seek counseling and barriers to seeking professional help. This questionnaire has usually been used in conjunction with the Actual Help-Seeking Behavior Questionnaire listed below.

**Actual Help-Seeking Questionnaire (adapted from Rickwood and Braithwaite, 1994).** The questionnaire lists 11 different sources of help for a personal and emotional problem. Respondents are asked to indicate if help was sought from each one of the sources in the past two weeks and to list the problem for which help was sought. Similar to the GHSQ, this questionnaire can be adapted in terms of the source of help and problem; the same revisions made to the GHSQ about sources of help (e.g., minister or religious leader) were made to the AHSQ and the score ranges from 11 to 77. For the current study, participants were not asked to indicate the problem, due to potential confidentiality/ethical concerns; however, participants were asked to indicate if they had sought help from these sources over the course of their lifetime as well as in the past two weeks.

**Depression Anxiety and Stress Scale-21 (DASS-21; Lovibond & Lovibond, 1995).** This is a 21-item scale assessing depression, anxiety, and stress, revised from the 42-item version (Lovibond & Lovibond, 1993). Each subscale is rated on a 3-point Likert scale and the range of scores is from 0 to 21, with higher scores indicating greater symptomology. For a nonclinical student sample, the internal consistencies were as follows: Depression ( $\alpha=.88$ ), Anxiety ( $\alpha=.82$ ), and Stress ( $\alpha=.90$ ). On a normative sample, the internal consistencies for each scale were as follows (Crawford & Henry, 2003): Depression ( $\alpha=.95$ ), Anxiety ( $\alpha=.90$ ), Stress ( $\alpha=.93$ ), and Total Scale

( $\alpha=.97$ ). In a sample of normative and clinical participants, the internal consistencies were as follows (Antony, Bieling, Cox, Enns, & Swinson, 1998): Depression ( $\alpha=.94$ ), Anxiety ( $\alpha=.87$ ), and Stress ( $\alpha=.91$ ). Concurrent validity was established with comparison to the Beck Depression Inventory ( $r=.74$ ; Beck, Rush, Shaw, & Emery, 1979) and Beck Anxiety Inventory ( $r=.81$ ; Beck & Steer, 1990). In the current study, the internal consistency of this measure is as follows: Depression ( $\alpha = .92$ ), Anxiety ( $\alpha=.85$ ), and Stress ( $\alpha=.87$ ), which is consistent with previous literature in a nonclinical student sample (Lovibond & Lovibond, 1995). In addition, the measure met the cut-off for good internal consistency of .8 (Carmines & Zeller, 1979), across subsamples of gender and race/ethnicity.

**Self-Stigma of Seeking Help (SSOSH, Vogel, Wade, & Haake, 2006).**

Based on Corrigan's model, a 10-item self-stigma scale (Self-Stigma of Seeking Help; SSOSH) was developed and conceptualized as "concerns about the loss in self-esteem a person would feel if they decided to seek help from a psychologist or other mental health professional" (Vogel, Wade, & Haake, 2006, p.137). The measure is rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree); 5 of the items are reverse scored. The score ranges from 10 to 50, with higher score indicating greater self-stigma. The Cronbach's alpha reliability of the scale ranged from .86 to .90, indicating good reliability. In addition, test-retest reliability was .72. Furthermore, the SSOSH was negatively associated with attitudes towards and with intent to seek psychological services. However, it has only been tested on a predominantly White, college sample, in the past. In the current study, the Cronbach's alpha of this measure was .74, which is an acceptable reliability coefficient value

(Loewenthal, 2001). In addition, the Cronbach's alpha was .7 or higher for female participants and across subsamples of race/ethnicity; however, for male participants it was .67, not meeting the criteria for acceptable internal consistency. Since there are not any self-stigma scales developed for or tested with ethnic minorities, using this scale on a sample of ethnic minorities provides data for at least some preliminary psychometric assessment.

**Discrimination-Devaluation Scale (D-D revised, Eisenberg, Downs, Golberstein, & Zivin, 2009).** The D-D scale evaluates stereotypes towards patients who have been hospitalized for mental health concerns. Eisenberg et al. adapted this scale for use to measure public stigma for mental health treatment in general. The internal reliability for the 12-item scale was .89, with 6 reverse-scored items. The score ranges from 0 to 60, with a higher score indicating greater stigma. There is another subscale in the D-D, which consists of 3 items measuring personal stigma, with 1 reverse-scored item and the internal reliability for these items was .78. The score ranges from 0 to 15, with a higher score indicating greater stigma. In addition, 22.7% of the students were ethnic minorities and an additional 10% rated either as Other or in multiple racial/ethnic categories. Although Eisenberg et al. did not report the psychometric properties for the ethnic minority students in particular, there were some racial/ethnic differences and gender found using this measure, in terms of stigma. Black students had the highest mean public stigma; Asian students had the highest mean personal stigma. Personal stigma was higher among Hispanic male participants compared to their female counterparts. However, a comprehensive psychometric analysis for this measure on racial/ethnic minorities is currently lacking.

In the current study, the Cronbach's alpha of the public stigma items was .83 and the Cronbach's alpha of the personal stigma items was .76. In addition, the Cronbach's alpha was .7 or higher across the subsamples of gender and race/ethnicity.

**Cultural Stigma (Revised items from D-D scale).** These items are designed to assess the relationship between one's cultural group's stigma of mental health treatment and one's own personal stigma. The three items from the personal stigma subscale are revised for this study to include the term "cultural/heritage group." Items are: "Someone from my cultural/heritage group would willingly accept someone who has received mental health treatment as a close friend;" "Someone from my cultural/heritage group would think less of a person who has received mental health treatment (reverse scored);" and "Someone from my cultural/heritage group would believe that someone who has received mental health treatment is just as trustworthy as the average person." The total score ranges from 0 to 15, with a higher score indicating greater cultural stigma. These items did not demonstrate good internal consistency in the sample ( $\alpha = .62$ ). The only subsample that good internal consistency was demonstrated for, was the Nonwhite participants ( $\alpha = .75$ ), which may be due to the reference to one's cultural/heritage group.

**Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS; Fischer & Farina, 1995).** The ATSPPHS is a 10 item scale which is a revision of the original 29-item ATSPPHS (Fischer & Turner, 1970). Items are answered on a 4-point Likert scale ranging from "disagree" to "agree;" five of the items are reverse scored and higher scores indicate positive attitudes towards help seeking. The total score ranges from 0 to 30, with higher scores indicating more

positive attitudes towards seeking help. Sample item from the scale is, “If I believed I was having a mental breakdown, my first inclination would be get professional attention.” The correlation between the longer version and the revised version was .87, indicating that they are measuring the same construct. Internal consistency was .84 and test-retest reliability was .80. The Cronbach alpha for a Latino sample attending a state university was .83 (Rojas-Vilches, Negy, & Reig-Ferrer, 2011). In addition, the longer version of the ATSPPHS was administered to other ethnic minority groups (e.g., Leong, Kim, & Gupta, 2011; Yeh, 2002). However, further psychometric information for ethnic minority groups is warranted. In the current study, the Cronbach’s alpha of this measure was .73. In addition, the Cronbach’s alpha was .7 or higher for female participants and across subsamples of race/ethnicity; however, for male participants it was .57 not meeting the criteria for acceptable internal consistency.

**Intentions to Seek Counseling Inventory (ISCI; Cash, Begley, McCown, & Weise, 1975).** A 17-item scale measuring the likelihood of seeking counseling for a given problem on a 6-point Likert scale, ranging from “very unlikely” to “very likely.” The score ranges from 17 to 102, with higher score indicating higher intention of seeking counseling. Three subscales and internal consistencies were established as follows: Interpersonal Problems (.90), Academic Problems (.71), and Drug/Alcohol Problems (.86) were identified as subscales (Cepeda-Benito & Short, 1998).

**Vancouver Index of Acculturation (VIA; Ryder, Alden & Paulhus, 2000).** The VIA is a 20-item measure assessing acculturation from a bilinear framework. There are two subscales in the measure: heritage (10 items) and mainstream



(10 items). Total subscale score ranges from 10 to 90, with higher score indicating a stronger identification with the cultural relationship being measured by that particular subscale. Cronbach's alpha was for the heritage subscale for of 1<sup>st</sup> and 2<sup>nd</sup> generation immigrants of a diverse sample was as follows: .91 (Chinese), .92 (East Asian), and .91 (a mixed group, i.e., Italian, Arabic, and East Indian). Cronbach's alpha for the mainstream subscale was as follows: .89 (Chinese), .85 (East Asian), and .87 (mixed group). Both subscales were significantly correlated, with percentage of time lived in a Western, English-speaking country, percentage of time educated in such a country, generational status, sojourner status, and English as first or second language, indicating concurrent validity. In a meta-analysis conducted by Huynh, Howell, and Benet-Martinez (2009), reliability scores of the VIA varied from .66 to .92 for non-dominant groups and from .70 to .89 for dominant groups. These groups were of different cultural backgrounds. In the current study, the Cronbach's alpha of the heritage subscale was .90 and mainstream subscale was .92. In addition, the Cronbach's alpha was .8 or higher across subsamples of gender and race/ethnicity.

**Race-Related Events Scale (RES; Waelde et al., 2010).** The RES is a 22-item checklist which assesses various experiences as they relate to one's race/ethnicity. Participants endorse a particular item if the experience was related to his/her race/ethnicity. An optional item is included where a participant can write about any other significant race-related experience. Total score is estimated by summing the 22 items, with higher score indicating more race-related stress; total score ranges from 0 to 22. Waelde et al. administered the measure to an ethnically diverse undergraduate student sample (n = 408), with a Cronbach alpha of .86 and test-retest reliability

of .66. White students reported less race-related stress compared to African American students; African American students reported more race-related stress compared to Asian Americans. The measure was recently developed so the psychometric information is limited. In the current study, the Cronbach's alpha of this measure was .95. In addition, the Cronbach's alpha was .9 across subsamples of gender and race/ethnicity.

**Multigroup Ethnic Identity Measure-Revised (MEIM-R; Phinney & Ong, 2007).** A 6-item scale measuring one's relationship to his/her ethnicity, with total score ranging from 6 to 30; higher score indicates stronger ethnic identity. The two subscales of exploration and commitment are rated on a 5-point Likert scale from "strongly disagree" to "strongly agree." Internal consistency for the scales was as follows (Phinney & Ong, 2007): Exploration ( $\alpha=.76$ ), Commitment ( $\alpha=.78$ ), and Combined Score ( $\alpha=.81$ ). For a sample of European Americans and minorities, the internal consistency was as follows (Yoon, 2011): Exploration ( $\alpha=.91$  and  $\alpha=.87$ ), Commitment ( $\alpha=.84$  and  $\alpha=.88$ ) and Combined Score ( $\alpha=.89$  and  $\alpha=.88$ ). Overall, the scale demonstrated good internal consistency. In the current study, the Cronbach's alpha of this measure was .94. In addition, the Cronbach's alpha was .8 or higher for across subsamples of gender and race/ethnicity.

## **Procedures**

Participants received an online link ([www.psychdata.com](http://www.psychdata.com)) requesting participation in the survey. Participants consented to participate online, where the first screen included an IRB-approved consent form. By proceeding further in the survey, they indicated their consent. The participants were able to print the consent form, if

desired. Participants were asked to answer demographic questions and the measures of acculturation, stigma of mental health, help-seeking history, help-seeking intentions, attitudes, and behaviors and race-related stressors (Appendix A). On each page of the survey, the following statement appeared: “Please make sure to answer each question, as complete information is crucial for this study.” The full questionnaire took approximately 20 minutes. Participants could return to previous pages to change answers and they were not required to answer a question. At the end of the survey, a thank you page appeared and a link was provided to register for the raffle drawing. If they chose to register for the drawing, participants were directed to a separate page to enter their emails addresses; this information was not linked to their data.

## CHAPTER 4

### FINDINGS

#### **Demographics**

Generational status (Costigan, Bardina, Cauce, Kim, & Latendresse, 2006) reported by participants was: 4.3% first generation (born outside the United States and came as an adult, n=14), 3.4% 1.5 generation (immigrated to the United States by age 13, n=11), 17.8% second generation (born in the United States, at least one parent was not born here, n=58), d) 14.4% third generation (born in the United States, with at least one parent born here, n=47), e) 60.1% fourth+ generation (born in the United States, one or more grandparents were also born here, n=196). In terms of education, 12.6% of the participants were first generation college students, defined as neither parent having any education beyond high school.

Approximately 39% of the participants (n=128) indicated having 0 days of physical ill health in the past 30 days. In the past 30 days, 41.4% participants indicating being sick for less than or equal to 5 days, 10.7% indicated being sick between 6-10 days, and 4.9% were sick for 11-15 days. In addition, 1.2% participants were sick for 16-20 days, 0.6% were sick for 25 days, 1.8% were sick for all 30 days and 0.3% indicated being physically sick for 45 days in the past 30 days, which is an outlier.

Participants described their general physical health as follows: Excellent (17.7%), very good (50.2%), good (25.0%), fair (6.4), poor (0.6%). Participants described their general mental health as follows: Excellent (14%), Very Good (36%), Good (30.8%); Fair (16.5%), and Poor (2.7%). Of the participants, 13.1% were taking

medications for a mental health condition or emotional problem and 18.9% indicated feeling the need to seek mental health treatment. In addition, 24.4% indicated that they would seek mental health treatment in the next 6 months, if believed that it was needed and 81.4% indicated that they had the resources to seek mental health treatment, if needed. In the GHSQ, participants reported how likely it is that they would seek help from a list of people for a personal or emotional problem. The sources of help were categorized as informal (partner, friend, parent, other family member, professor, and minister/religious leader), formal (mental health professional and doctor), and electronic sources of help (phone helpline and chatrooms) (adapted from Deane, Wilson, & Ciarrochi, 2001). In the AHSQ, participants reported who they sought help from in the past 2 weeks and lifetime, with the sources categorized similarly to the GHSQ as informal, formal, and electronic. There were no significant racial differences in the use of informal, formal, and electronic sources of help generally and actually used. Similarly, there were no significant gender differences in the use of informal, formal, and electronic sources of help generally and actually used. Approximately half the sample (45.7%) indicated that they have sought help from a mental health professional (e.g., counselor, social worker, psychologist, psychiatrist) to get help for personal problems, with 11.3% rating the visit as extremely helpful and 80.8% rating it as helpful (rating of 3) or higher (rating of 4 or 5). Additional demographic information is presented in Tables 1-3.

Table 1

*Demographics of Study Participants*

Sex	N	%
Female	244	74.8 %
Male	82	25.2%
Other	0	0%
<b>Age (Years)</b>		
18	76	23.3%
19	87	26.7%
20	54	16.6%
21+	109	33.4%
<b>Highest Level of Education Completed</b>		
High School	83	25.5%
Freshman	95	29.1%
Sophomore	51	15.6%
Junior	55	16.9%
Senior	31	9.5%
Graduate School	11	3.4%
<b>Generational Status</b>		
First Generation (includes 1 <sup>st</sup> and 1.5 generation)	25	7.7%
Second Generation	58	17.8%
Third Generation	47	14.4%
Fourth+ Generation	196	60.1%

Table 2

*Mean Scores, Standard Deviations, and Cronbach Alpha for Female, Male, and Full Sample*

	Female			Male			All		
	Mean	SD	$\alpha$	Mean	SD	$\alpha$	Mean	SD	$\alpha$
Stress	6.07	4.63	.86	4.76	4.78	.90	5.74	4.70	.87
Depression	4.55	4.65	.91	5.27	5.56	.93	4.73	4.89	.92
Anxiety	4.05	4.04	.83	4.27	4.80	.89	4.11	4.24	.85
DASS	14.68	11.76	.94	14.29	14.22	.96	14.58	12.40	.94
Heritage	63.24	15.44	.92	60.84	12.24	.85	62.64	14.72	.90
Mainstream	68.51	14.61	.93	66.22	14.09	.91	67.94	14.50	.92
Ethnic Identity	18.29	6.59	.95	17.33	5.09	.87	18.05	6.25	.94
Race-related stress	3.26	5.10	.94	4.11	6.49	.97	3.47	5.48	.95
Self-stigma	30.69	6.46	.76	30.13	5.93	.67	30.55	6.33	.74
Public Stigma	26.83	8.75	.85	28.80	7.48	.73	27.33	8.48	.83
Personal Stigma	2.84 <sup>***</sup>	2.50	.73	4.44 <sup>***</sup>	3.30	.79	3.24	2.80	.76
Cultural Stigma	5.64	2.74	.61	6.34	2.78	.65	5.82	2.76	.62
Attitudes	11.98 <sup>***</sup>	4.97	.74	15.15 <sup>***</sup>	3.96	.57	12.78	4.93	.73
Intentions	49.57	18.40	.93	43.79	18.64	.94	48.12	18.60	.93

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 3

*Mean Scores, Standard Deviations, and Cronbach Alpha for Whites and Nonwhites*

	White			Nonwhite		
	Mean	SD	$\alpha$	Mean	SD	$\alpha$
Stress	5.78	4.74	.87	5.64	4.59	.85
Depression	4.57	5.05	.93	5.16	4.44	.87
Anxiety	4.05	4.42	.87	4.25	3.72	.77
DASS_Full Scale	14.41	12.78	.95	15.05	11.40	.93
Heritage	61.66	14.66	.90	65.24	14.67	.91
Mainstream	68.72	15.00	.93	65.84	12.91	.90
Ethnic Identity	17.35	5.99	.94	19.90	6.59	.93
Race-related stress	2.52 <sup>***</sup>	5.13	.96	6.02 <sup>***</sup>	5.60	.93
Self-stigma	30.79	6.37	.76	29.91	6.22	.71
Public Stigma	27.29	8.31	.82	27.42	8.96	.87
Personal Stigma	3.09	2.69	.75	3.63	3.06	.81
Cultural Stigma	5.53 <sup>*</sup>	2.47	.55	6.60 <sup>*</sup>	3.32	.75
Attitudes	12.59	4.93	.74	13.29	4.89	.71
Intentions	48.09	18.50	.93	48.20	18.96	.93

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .



Pearson correlations for independent and dependent variables are listed in Table 4. Depression was significantly correlated with the Stress subscale ( $r = 0.70$ )

Table 4

*Pearson Correlations for Independent and Dependent Variables*

Scale	1	2	3	4	5	6	7	8	9	10	11	12	13
1. DASS_Stress	--												
2. DASS_Dep	.70**	--											
3. DASS_Anxiety	.73**	.69**	--										
4. VIA_Heritage	-.01	-.11*	-.14*	--									
5. VIA_Mainstream	.04	-.07	-.11	.71**	--								
6. Race-related Stress	.06	.14*	.18*	-.14*	-.26**	--							
7. Self-Stigma	-.05	.00	-.09	-.04	.01	-.08	--						
8. Ethnic Identity	-.02	-.06	-.01	.38**	.09	-.00	-.10	--					
9. Public Stigma	.13*	.17**	.06	-.14*	-.07	.07	-.02	-.11*	--				
10. Attitudes	-.06	.04	.10	-.16**	-.13*	.10	.08	-.13*	.17**	--			
11. Intentions	.27**	.27**	.23**	.08	.05	-.06	.01	.18**	.021	-.31**	--		
12. Personal Stigma	.02	.13*	.15**	-.20**	-.23**	.13*	.02	-.07	.33**	.27**	.03	--	
13. Cultural Stigma	.08	.10	.03	-.21**	-.14*	.06	-.04	-.05	.45*	.21**	-.05	.27**	--

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

and Anxiety ( $r = 0.69$ ); Anxiety subscale was significantly correlated with Stress ( $r = 0.73$ ), suggesting some overlap of symptoms between these subscales. Heritage culture was significantly correlated with depression ( $r = -.11$ ) and anxiety ( $r = -.14$ ), which will be further explored in subsequent analyses. Mainstream and heritage culture were significantly correlated ( $r = .71$ ); this strong correlation suggests multicollinearity, violating the orthogonal relationship proposed by Ryder, Alden, & Paulhus (2000).

Even for the racial/ethnic minority sample, heritage and mainstream culture were significantly correlated ( $p = .74$ ). Race-related stress was significantly correlated with depression ( $r = .14$ ), anxiety ( $r = .18$ ), heritage culture ( $r = -.14$ ), and mainstream culture ( $r = -.26$ ), which will be further explored in subsequent analyses. Ethnic identity was significantly correlated with heritage culture ( $r = .38$ ).

In terms of the stigma variables, self-stigma was not significantly correlated with any of the measures in the study. Public stigma was significantly correlated with Stress ( $r = .13$ ), depression ( $r = .17$ ), heritage culture ( $r = -.14$ ) and ethnic identity ( $r = -.11$ ). Attitudes towards help seeking was significantly correlated with heritage culture ( $r = -.16$ ), mainstream culture ( $r = -.13$ ), ethnic identity ( $r = -.13$ ), and public stigma ( $r = .17$ ). Intention to seek counseling was significantly correlated with stress ( $r = .27$ ), depression ( $r = .27$ ), anxiety ( $r = .23$ ), ethnic identity ( $r = .18$ ), and attitudes towards help seeking ( $r = -.31$ ). Personal stigma was significantly correlated with depression ( $r = .13$ ), anxiety ( $r = .15$ ), heritage culture ( $r = -.20$ ), mainstream culture ( $r = -.23$ ), race-related stress ( $r = .13$ ), public stigma ( $r = .33$ ), and attitudes towards help seeking ( $r = .27$ ). Cultural stigma was significantly correlated with heritage culture ( $r = -.21$ ), mainstream culture ( $r = -.14$ ), public stigma ( $r = .45$ ), attitudes towards help seeking ( $r = .21$ ), and personal stigma ( $r = .27$ ).

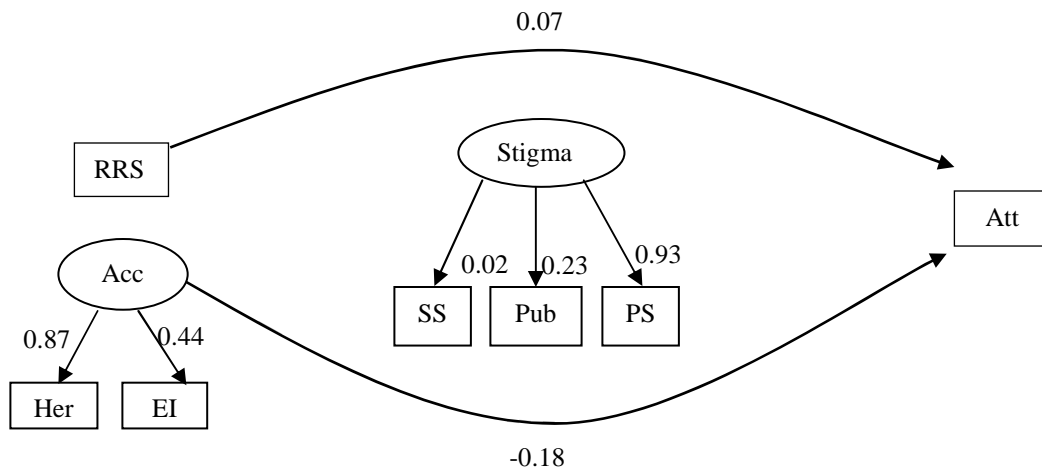
## **Path Analysis**

In order to test hypothesis 1, direct, mediational, and full models were analyzed and compared for goodness of fit (See Figures 1, 2, and 3). Skewness and Kurtosis indices were examined and were found to be within normal limits (Curran, West, & Finch, 1996; DeCarlo & Finch, 1997). Due to the high correlation between the heritage and mainstream culture variables, the mainstream culture variable was dropped from the model. Mainstream culture was excluded as opposed as heritage culture because it was not significantly correlated to any of the other study variables. Therefore, the predictor variable of Acculturation was measured by heritage culture and ethnic identity. The second predictor, race-related stress, was measured by the Race-related Events Scale. The mediator variable, Stigma, was measured by self, public, and personal stigma. The outcome variable was attitudes towards seeking mental health treatment. Path analysis results are summarized in Table 5.

First, the fit of each model was evaluated, with consideration of several indices. A  $\chi^2$  that was close to non-significant and ideally close to the degrees of freedom, which was interpreted as indicating good fit between the model and the population (Bollen, 1989). In addition, the Comparative Fit Index value (CFI)  $>.90$  and a Root Mean-Square Error of Approximation (RMSEA)  $<.05$  was considered a good fit (Bentler, 1992; Browne & Cudeck, 1993). Then the three models (Figure 1, Figure 2, and Figure 3) were compared. The indices of fit were evaluated separately for each model and then a  $\chi^2$  difference test was conducted to evaluate the best fitting model.

**Direct Model.** In this model, acculturation and race-related stressors were direct predictors of attitudes towards seeking mental health treatment. The  $\chi^2$  was significant and not close to the degrees of freedom (Refer to Table 5). The CFI was .93, which meets the criteria for good fit. However, RMSEA was .10, which is not a good indication of fit. Overall, the direct model is considered to be a poor fit.

Figure 1: Direct Model

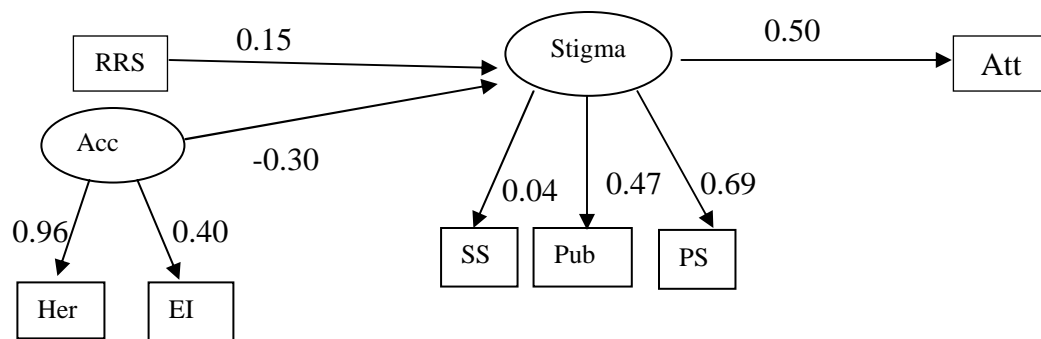


Acc = Heritage Subscale (Her) and Ethnic Identity (EI)  
 RRS = Race-related Stressors scale  
 Stigma = Self-stigma (SS), Public stigma (Pub), and Personal stigma (PS) scales  
 Att = Help-seeking attitudes scale

**Mediation Model.** In this model, acculturation and race-related stress were predictors of attitudes towards seeking mental health treatment, with stigma as a mediator. The  $\chi^2$  was not significant and it was close to the degrees of freedom (Refer to Table 5), which is a good indication of fit. In addition, the CFI was .99 and RMSEA was .02, which is an indication of fit. Overall, the mediational model is considered to be a good fit.

In the mediational model, the path from acculturation to stigma was statistically significant ( $\beta = -.30, p < .05$ ), indicating that participants with lower level of identification with heritage culture and ethnic identity had a higher level of stigma. There was a medium effect size, with  $R^2 = 0.13$  (Cohen, 1992). However, the path from race-related stress to stigma was not significant ( $\beta = .15, p > .05$ ), indicating that participants' race-related stress was not a direct predictor of stigma. The path from stigma to attitudes towards seeking mental health treatment was significant ( $\beta = .40, p < .05$ ), indicating that higher levels of stigma were related to more positive attitudes towards seeking mental health treatment. There was a medium effect size, with  $R^2 = 0.16$ . In addition, both heritage culture and ethnic identity loaded on significantly onto acculturation and public and personal stigma loaded on significantly onto stigma; however, self-stigma was not significant.

Figure 2: Mediational Model



**Full Model.** In this model, acculturation and race-related stress were direct predictors of stigma and attitudes towards seeking mental health treatment, with stigma as a mediator between acculturation and race-related stress and the outcome variable, attitudes towards seeking mental health treatment. The  $\chi^2$  was not significant

and close to the degrees of freedom (Refer to Table 5). The CFI was .99 and RMSEA was .02, which is a good indication of fit.

In the full model, the direct paths from race-related stress to attitudes towards seeking mental health treatment and from acculturation to attitudes towards seeking mental health treatment were not significant. In addition, the path from race-related stress to stigma was not significant. However, the path from acculturation to stigma was significant ( $\beta = -.29, p < .05$ ), indicating that participants with lower level of identification with heritage culture and ethnic identity had a higher level of stigma. There was a small effect size, with  $R^2 = 0.11$ . Furthermore, the path between stigma and attitudes towards seeking mental health treatment was also significant ( $\beta = .35, p < .05$ ), indicating that high levels of stigma were related to high levels of attitudes towards seeking mental health treatment, with a medium effect size ( $R^2 = .15$ ). Similar to the mediational model, both heritage culture and ethnic identity loaded on acculturation and public and personal stigma loaded on significantly onto stigma; however, self-stigma was not significant.

Figure 3: Full Model

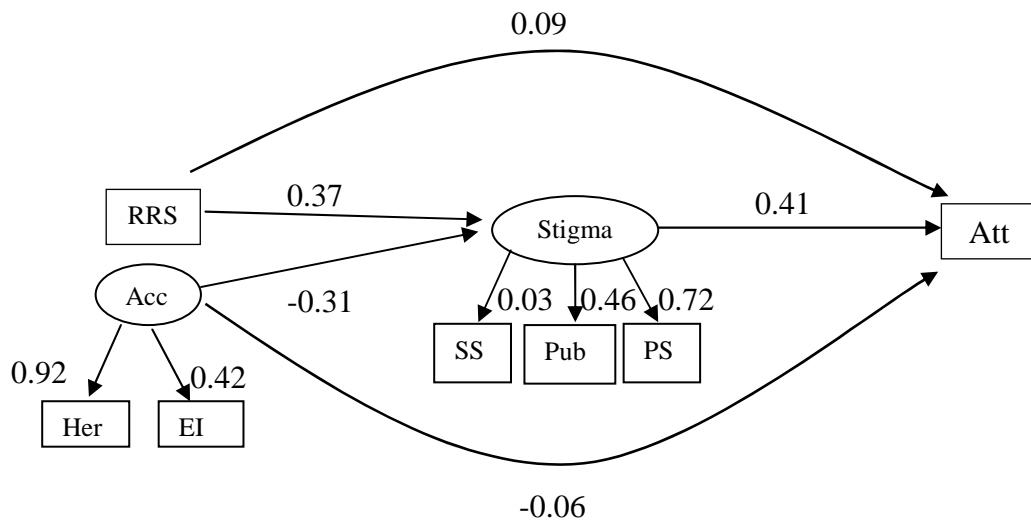


Table 5

*Structural Equational Model Fit Criteria Values*

Model	$\chi^2$	<i>df</i>	Sig. ( <i>p</i> )	CFI	RMSEA
Direct	136.47	15	.00	.93	.16
Mediation	13.01	12	.37	.99	.02
Full	11.89	10	.29	.99	.02

**Multiple Regressions within White and Nonwhite Samples**

To test hypotheses 2 and 3, a series of standard multiple regressions were conducted on both the White and Nonwhite participants to examine whether acculturation, race-related stressors, ethnic identity, and different types of stigma were predictors of attitudes towards seeking mental health treatment. The hypotheses were based on the proposed models (Figures 1, 2, and 3). The analyses were conducted in three different steps to map onto these models, within the Nonwhite and White participants. First, multiple regressions were conducted to examine the relationship between cultural factors and attitudes towards seeking mental health treatment; intentions towards seeking counseling was additionally examined as well, although it was not a part of the original model. Second, multiple regressions were conducted to examine the relationship between cultural factors (i.e., acculturation and ethnic identity) and various types of stigma. Third, multiple regressions were conducted to examine the relationship between various types of stigma and attitudes towards seeking mental health treatment; intentions towards seeking counseling was examined as well. All these analyses were conducted for the White participants and then repeated for Nonwhite participants, as the available literature suggests that ethnic minorities may be even more susceptible to stigma about mental health.

**Cultural factors, stigma, attitudes towards and intentions to seek help, and mental health (White participants).** To test hypothesis 2, a standard multiple regression was conducted with mainstream culture, heritage culture, and ethnic identity as independent variables predicting attitudes towards seeking mental health treatment among White participants. Identification with mainstream culture, identification with heritage culture, and ethnic identity were not significant predictors of attitudes towards seeking mental health treatment. In addition, a standard multiple regression was conducted with the same independent variables predicting intentions towards seeking counseling. Identification with mainstream culture, identification with heritage culture, and ethnic identity were also not significantly related to intentions towards seeking counseling. A multiple regression was conducted with race-related stressor as a predictor of attitudes towards seeking mental health treatment. Race-related stressors was significantly related to attitudes towards seeking mental health treatment [ $F(1, 235) = 3.95, p = .048$ ], with  $\beta = .129$ , indicating that increased race-related stress was associated with better attitudes towards seeking mental health treatment. However, the  $R^2 = 0.017$  and adjusted  $R^2 = 0.012$  did not meet criteria for even a small effect size. Similarly, race-related stressors was significantly related to intention to seek counseling [ $F(1, 235) = 4.15, p = .043$ ], with  $\beta = -.132$ , indicating that increased race-related stress was associated with lower intention to seek counseling. However, the  $R^2 = 0.017$  and adjusted  $R^2 = 0.013$  did not meet criteria for even a small effect size.



A series of standard multiple regressions were conducted with mainstream culture, heritage culture, and ethnic identity as independent variables predicting public, self, personal, and cultural stigma, separately. The Mainstream and Heritage subscales of the VIA and ethnic identity were not significant predictors of public stigma or self-stigma. For personal stigma, only identification with mainstream culture was a significant predictor [ $F(3, 233) = 8.11, p = .000$ ], with  $\beta = -.206$ , indicating that less identification with mainstream culture was associated with greater levels of personal stigma. There was a small multivariate effect size, with  $R^2 = 0.095$  and adjusted  $R^2 = 0.083$ . Regression coefficients are presented in Table 6. For cultural stigma, only identification with heritage culture was a significant predictor [ $F(3, 232) = 7.02, p = .000$ ], with  $\beta = -.387$ , indicating that greater identification with heritage culture was associated with lower cultural stigma. There was a small multivariate effect size, with  $R^2 = 0.083$  and adjusted  $R^2 = 0.071$ . Regression coefficients are presented in Table 7.

Table 6

*Multiple Regression Analysis for Cultural Factors and Personal Stigma, White Participants*

Model	<i>B</i>	<i>SE B</i>	$\beta$	$R^2$	$\Delta R^2$
				.095***	.08
Heritage	-.02	.02	-.11		
Mainstream	-.04	.02	-.21*		
Ethnic Identity	-.03	.03	-.06		

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 7

*Multiple Regression Analysis for Cultural Factors and Cultural Stigma, White Participants*

Model	<i>B</i>	<i>SE B</i>	$\beta$	$R^2$	$\Delta R^2$
				.05***	.04
Heritage	-.07	.02	-.39***		
Mainstream	.02	.02	.13		
Ethnic Identity	.03	.03	.08		

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

A standard multiple regression was conducted with the different types of stigma (public, self, personal, and cultural) predicting attitudes towards seeking mental health treatment. Regression coefficients are presented in Table 8. Public stigma, self-stigma, and personal stigma were examined as predictors of attitudes towards seeking mental health treatment. Only personal stigma was a significant predictor [ $F(3, 233) = 8.73, p = .000$ ], with  $\beta = .276$ , indicating that a higher level of personal stigma was associated with more positive attitudes towards seeking mental health treatment. There was a small multivariate effect size, with  $R^2 = 0.101$  and adjusted  $R^2 = 0.090$ . In addition, a standard multiple regression was conducted with the different types of stigma (public, self, personal, and cultural) predicting intentions towards seeking counseling. None of the stigma variables were significant predictors of intentions to seek counseling.

Table 8

*Multiple Regression Analysis of Stigma and Attitudes, White Participants*

Model	<i>B</i>	<i>SE B</i>	$\beta$	$R^2$	$\Delta R^2$
				.10***	.09
Self	.38	.48	.05		
Public	.55	.46	.08		
Personal	.50	.12	.28***		

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Additional analyses examined the relationship between cultural factors and mental health. A series of standard multiple regressions were conducted with heritage, mainstream, and race-related stressors predicting the DASS subscales of depression, anxiety, and stress. The acculturation predictors were not significant. Race-related stressor was a significant predictor of anxiety [ $F(1, 235) = 7.05, p = .008$ ], with  $\beta = .171, R^2 = 0.029$  and adjusted  $R^2 = 0.025$ , indicating a small multivariate effect size. This result indicates the greater level of race-related stress was associated with higher levels of anxious symptoms.

Table 9

*Multiple Regression Analysis for Cultural Factors and Stress, White Participants*

Model	<i>B</i>	<i>SE B</i>	$\beta$	$R^2$	$\Delta R^2$
				.04**	.03
Heritage	-.01	.03	-.31***		
Mainstream	.08	.03	.25**		
Ethnic Identity	.06	.05	.08		

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

**Cultural factors, stigma, attitudes towards and intentions to seek help, and mental health (Nonwhite participants).**

To test hypothesis 3, the same multiple regressions were conducted with the further explored with racial/ethnic minority participants. Similar to the White sample, identification with mainstream culture, identification with heritage culture, and ethnic identity were not significant predictors of attitudes towards seeking mental health treatment. Mainstream and Heritage culture were also not significantly related to intentions towards seeking counseling.

Ethnic identity was a significant predictor of intentions to seek counseling [ $F(3, 87) = 3.139, p = .029$ ],  $\beta = .343$ , indicating that greater identification with ethnic identity was associated with higher intention of seeking counseling. There was a small multivariate effect size, with  $R^2 = 0.098$  and adjusted  $R^2 = 0.067$ . Regression coefficients are presented in Table 10. None of the cultural variables were significant predictors of stigma and none of the stigma variables were significant predictors of attitudes towards seeking mental health treatment or intentions of seeking counseling. Acculturation and ethnic identity were not significant predictors of anxiety or depression. However, both mainstream and heritage cultural affiliation were significant predictors of stress [ $F(3, 87) = 3.751, p = .014$ ],  $\beta = .448$  and  $\beta = -.556$ , respectively. This result indicates that greater identification with mainstream culture was associated with higher levels of stress and greater identification with heritage culture was associated with lower levels of stress. There was a small multivariate effect size, with  $R^2 = 0.115$  and adjusted  $R^2 = 0.084$ . Regression coefficients are presented in Table 11. Race-related stressors were not significantly related to any of stigma variables or to attitudes and intentions towards seeking help. Race-related stressors were a significant predictor of stress [ $F(1, 89) = 5.063, p = .027$ ], with  $\beta = .232$ ,  $R^2 = 0.054$  and adjusted  $R^2 = 0.043$ , indicating a small multivariate effect size and that greater levels of race-related stress was associated with higher levels of stress. In addition, race-related stressors were a significant predictor of anxiety [ $F(1, 89) = 5.117, p = .026$ ],  $R^2 = 0.054$  and adjusted  $R^2 = 0.044$ , indicating a small multivariate effect size. This result indicates the greater level of race-related stress was associated

with higher levels of anxious symptoms. Race-related stressors were not a significant predictor of depression.

Table 10

*Multiple Regression Analysis for Cultural Factors and Intentions (Racial/Ethnic Minorities)*

Model	<i>B</i>	<i>SE B</i>	$\beta$	$R^2$	$\Delta R^2$
				.10*	.07
Heritage	-.08	.23	-.06		
Mainstream	-.19	.22	-.13		
Ethnic Identity	.98	.37	.34**		

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 11

*Multiple Regression Analysis for Cultural Factors and Stress (Racial/Ethnic Minorities)*

Model	<i>B</i>	<i>SE B</i>	$\beta$	$R^2$	$\Delta R^2$
				.12*	.08
Heritage	-.17	.06	-.56**		
Mainstream	.16	.05	.49**		
Ethnic Identity	.07	.09	.11		

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

**Gender and Racial/ethnic Comparisons**

To test hypotheses 4a and 5a, a 2 x 2 multivariate analysis of variance (MANOVA) was conducted to examine racial (White and Nonwhite) and gender group differences in heritage acculturation, mainstream acculturation, ethnic identity, and race-related stress. Preliminary testing was conducted to examine for normality, linearity, and homogeneity of variance. Homogeneity of variance was violated for ethnic identity and race-related stress ( $p = .008$  and  $p = .000$ , respectively); similar criteria for interpretation as described previously will be used. As a result, Pillai's trace as opposed to the commonly used Wilks' Lambda will be used to interpret the

overall group differences, with a larger value interpreted accounting for more of the variance in the linear combination DVs explained by IVs. Pillai's trace is the most robust index of group difference and is preferred when there are violations of homogeneity of variance or unequal sample sizes, both of which occur with the current model (Harlow, 2005). In addition, a conservative alpha level of .025 or .01 is recommended in examining the univariate F-test, rather than .05 alpha level (Tabachnick & Fidell, 2007); all results for this MANOVA will be interpreted using the above criteria. There were significant overall group differences between White and Nonwhite participants on the DVs,  $F(4, 319) = 6.30, p = .000$ ; Pillai's Trace = .073;  $\eta^2 = .073$ , indicating a small effect size. However, there were no significant group differences between male and female participants on the DVs of heritage acculturation, mainstream acculturation, ethnic identity, and race-related stress. Additionally, there was no interaction effect between racial group and gender. Univariate between-subject tests showed that Nonwhite participants were significantly different than White participants on race-related stress, ( $F(3, 322) = 13.38, p = .000$ ). An examination of the mean scores (Table 3) indicated that Nonwhites reported higher levels of race-related stress ( $M = 6.02, SD = 5.60$ ) than Whites ( $M = 2.52, SD = 5.13$ ). Univariate between-subject tests showed that Nonwhite participants were significantly different than White participants on ethnic identity,  $F(3, 322) = 4.87, p = .028$ . However, given the more stringent criteria being used for alpha level, this result will not be further interpreted.

To test hypotheses 4b and 5b, a 2 x 2 MANOVA was conducted to examine racial (White and Nonwhite) and gender group differences in self, public, personal,

and cultural stigma. Preliminary testing was conducted to examine for normality, linearity, and homogeneity of variance. Homogeneity of variance was violated for personal and cultural stigma ( $p = .004$  and  $p = .005$ , respectively). There were significant overall group differences between White and Nonwhite participants on the stigma variables,  $F(4, 318) = 2.49, p = .043$ ; Pillai's Trace = .03, with a small effect size. In addition, there were significant group differences between male and female participants on public, self, personal, and cultural stigma variables,  $F(4, 318) = 4.70, p = .001$ ; Pillai's Trace = .056, indicating a small effect size. However, there was no interaction effect between racial group and gender. Univariate between-subject tests showed that Nonwhite participants were significantly different than White participants on cultural stigma, ( $F(3, 321) = 5.96, p = .015$ ). An examination of the mean scores (Table 3) indicated that Nonwhites reported slightly higher levels of cultural stigma ( $M = 6.60, SD = 3.32$ ) than Whites ( $M = 5.53, SD = 2.47$ ). Additionally, univariate between-subject tests indicated that Female participants were significantly different from male participants on personal stigma,  $F(3, 321) = 17.33, p = .000$ ). An examination of the mean scores (Table 2) indicated that males reported higher levels of personal stigma ( $M = 4.44, SD = 3.30$ ) than females ( $M = 2.84, SD = 2.50$ ).

To test hypotheses 4c and 5c, a 2 x 2 MANOVA was conducted to examine racial (White and Nonwhite) and gender group differences in attitudes towards help seeking and intentions of seeking counseling. Preliminary testing was conducted to examine for normality, linearity, and homogeneity of variance. Homogeneity of variance was violated for attitudes towards help seeking ( $p = .020$ ); similar criteria for

interpretation as described previously will be used. There were no significant overall group differences between White and Nonwhite participants on attitudes towards seeking help and intentions to seek counseling. However, there were significant group differences between male and female participants on the DVs of attitudes towards seeking help and intentions to seek counseling,  $F(2, 321) = 11.74, p = .000$ ; Pillai's Trace = .068), indicating a small effect size. Additionally, there was no interaction effect between racial group and gender. Univariate between-subject tests showed that female and male participants differed significantly on attitudes towards seeking help,  $F(3, 322) = 23.25, p = .000$ ). An examination of the mean scores (Table 2) indicated that males reported greater attitudes towards help seeking ( $M = 25.00, SD = 3.91$ ) than females ( $M = 21.88, SD = 4.90$ ).

To test hypotheses 4d and 5d, a 2 x 2 MANOVA was conducted to examine racial (White and Nonwhite) and gender group differences in the mental health variables of depression, anxiety, and stress. Preliminary testing was conducted to examine for normality, linearity, and homogeneity of variance, with no violations observed. There were no significant overall group differences between White and Nonwhite participants on depression, anxiety, and stress. However, there were significant group differences between male and female participants on the DVs of depression, anxiety, and stress,  $F(3, 320) = 6.26, p = .000$ ; Wilks'  $\lambda = .945; \eta^2 = .055$ ), indicating a small effect size. Additionally, there was no interaction effect between racial group and gender. Although there were significant macro-level differences, univariate between-subject tests showed that female and male participants did not differ significantly on depression, anxiety, and stress.



## CHAPTER 5

### DISCUSSION AND CONCLUSIONS

The main objective of this study was to examine potential cultural, social, and psychological predictors of attitudes towards mental health seeking. Seeking help for mental healthcare is a complex issue, particularly due to stigma against people with mental health concerns. There have been mixed results in the literature as to what type of stigma (public vs. self) plays a more prominent role in predicting attitudes, intentions, and behaviors related to mental help seeking. In addition, race/ethnicity is often used as a proxy measure of culture in the mental help seeking literature. The current study extends the literature by more directly measuring cultural experiences, through examining the constructs of acculturation, ethnic identity, and race-related stress in White and Nonwhite college students and using these constructs of culture as predictors of attitudes and intentions towards help-seeking.

The sample was predominantly White and female. Most of the participants were not first generation college students (87.4%). Participants generally reported being mentally and physically healthy; approximately 19.6% of the participants indicated being physically ill for 6 or more days in the past 30 days. Additionally, 92.9% of the participants described their general physical health as excellent, very good, or good, indicating that this sample is overall physically healthy. The measurement of physical health as part of the assessment of mental health is important, due to overlap of somatic symptoms in common mental health concerns, such as anxiety and depression (e.g., shortness of breath, insomnia, weight changes). In addition, literature indicates that there are cultural variations in the expression and

experience of mental health symptoms, with a particular emphasis on somatic symptoms for racial/ethnic minorities (e.g., Lin & Cheung, 1999). However, physical health was not utilized in subsequent analyses due to the homogeneity of the group.

A small segment (13.1%) of the sample is taking psychiatric medications and less than a quarter of the sample (18.9%) indicated feeling the need to seek mental health treatment. However, quarter of the sample indicated that they would seek treatment in the next six months, if needed. Overall, most of the sample (81.4%) feels that they had the resources to seek mental health treatment, if needed. This confidence about having available resources may be indicative of the sample being college students, all on campuses with access to college and/or university counseling centers. However, it may also be a result of college students being more aware of mental health concerns and resources in general due to the increased educational efforts targeting this generational cohort (Eisenberg et al., 2009).

### **Psychometrics and Correlations**

The subscales of the DASS are significantly correlated, particularly depression with stress and anxiety and the anxiety subscale being significantly correlated with the stress subscale. These results suggest overlap of symptoms and are consistent with the correlations in the literature (Lovibond & Lovibond, 1995). In addition, the overlap may also be representative of the comorbidity between mood and anxiety disorders (DSM-IV-TR, 2000). Since the measure is a self-report and due to the symptom overlap, the results of this questionnaire are not interpreted diagnostically; they represent more of a reflection of some level of mental health distress.

The VIA was designed to measure an individual's relationship to heritage culture and an individual's relationship to mainstream culture independently and as a result the correlations between the subscales are expected to be low (Ryder, Alden, & Paulhus, 2000). For this particular sample, the mainstream and heritage culture are significantly correlated ( $p = .71$ ). The high and significant correlation in the sample indicates multicollinearity, where both subscales are measuring the same construct. This high correlation reflects the fact that the sample is predominantly White and therefore the terms "heritage" and "mainstream" may represent the same aspect of their cultural experience. In addition, the sample was predominantly second generation or higher (92.3%), in terms of being born in the United States. Within the racial/ethnic minority sample, where some variation may be expected in terms of the relationship to heritage and mainstream culture, the subscales are similarly significantly correlated ( $p = .74$ ). Similarly, most of this subsample was also of second generation or higher (71%), which may explain the highly correlated relationship between the heritage and mainstream culture subscales.

Race-related stress is positively correlated with depression and anxiety for the overall sample, consistent with the literature that those who endorse experiencing a race-related stress exhibit symptoms of anxiety, specifically posttraumatic stress disorder (Waelde et al., 2010). When this significant relationship was further explored with White participants, race-related stress was a significant predictor of anxiety, which does not support hypothesis 2. Within the racial/ethnic minority sample, race-related stress was a significant predictor of anxiety and stress, but not depression, which is in partial support of hypothesis 3. In addition, race-related stress indicated a

negative correlation with both heritage and mainstream cultures in the overall sample, indicating that strong identification with a cultural group may be a potential buffer for race-related stress. However, race-related stress was not significant in terms of stigma and/or attitudes towards treatment for both Whites and Nonwhites. Overall, there is some support that race-related stress is an important aspect of one's cultural experience that warrants further exploration within the context of mental health.

Although there was significant negative correlation between heritage and mainstream culture, and attitudes towards help seeking, neither heritage nor mainstream culture were significant predictors of attitudes towards help seeking for White participants. Similarly ethnic identity was also not a significant predictor of attitudes towards help seeking for the White participants. These results not being significant is in support of hypothesis 2 and may be due to the homogeneity of the sample. Within the racial/ethnic minority sample, these cultural factors were not significant predictors of attitudes towards help seeking, which is not in support of hypothesis 3. However, ethnic identity was a significant predictor of intention to seek counseling, indicating that stronger ethnic identity is related to a greater intention to seek counseling. In contrast, race-related stress was a significant predictor of attitudes towards seeking mental health treatment and intention to seek counseling within the White sample; however the effect size for both predictors did not meet criteria for even a small effect size (i.e., negligible) and will not be further interpreted.

Public stigma is positively correlated with stress and depression, indicating that higher levels of stigma are related to higher levels of stress and depression. Since the study was not designed to establish causal relationships, it is unclear if public stigma

results in increased symptoms, due to not seeking treatment or if having symptoms of mental health increases public stigma. In addition, public stigma is negatively correlated with heritage culture and ethnic identity, suggesting that a closer affiliation with heritage culture and/or greater level of ethnic identity may indicate lower level of public stigma. However, neither one of these cultural factors were significant predictors of public stigma, in the White sample, in support of Hypothesis 2, or the racial/ethnic minority sample, which does not support hypothesis 3. Public stigma was not a significant predictor of attitudes towards seeking mental health treatment in both of the subsamples. This is in contrast to the hypotheses 2 and 3 and the literature (Barney, Griffiths, Jorm, and Christensen, 2006), where a negative correlation was expected between the two variables.

Personal stigma was significantly correlated with multiple measures; in particular it was a significant predictor of attitudes towards help seeking for White participants. The results indicate that higher personal stigma meant more positive attitudes towards seeking help. However, self-stigma was not a significant predictor. Additionally, self-stigma was not significantly correlated with any of the study measures, which explains the very low loading onto the stigma latent variable in the path analysis.

Mainstream culture was a significant predictor of personal stigma, with a negative correlation between the two variables. In addition, mainstream culture was a significant predictor of cultural stigma, with a negative correlation between the two variables. For the White participants, lower affiliation with mainstream culture was affiliated with higher personal stigma, indicating that affiliation with a cultural group

is important, in contrast to the prediction in hypothesis 2 where null findings were expected. In addition, higher affiliation with heritage culture was related to lower cultural stigma, potentially implying that for participants where the heritage culture experience is distinctly different from mainstream culture, experience with cultural stigma is important to explore. These results were not significant for racial/ethnic minorities and not in support of hypothesis 3. For both subsamples, mainstream culture was not a significant predictor of any other forms of stigma; heritage culture was also not significant predictor of any of public, personal, and self-stigma. Heritage culture was negatively correlated with public, personal, and cultural stigma; heritage culture was a significant predictor of cultural stigma in the overall sample. Ethnic identity was not a significant predictor of any forms of stigma.

### **Predicting Mental Health Help-seeking**

Direct, mediational, and full models were compared with acculturation and race-related stressors predicting stigma, which in turn predicted attitudes towards mental health help-seeking. The direct model with acculturation and race-related stressors as a predictor of attitudes towards seeking mental health treatment was not significant. This result is important, given that cultural variables, particularly acculturation and race/ethnicity, have been found to play a key role in barriers to seeking help, but not on a consistent basis (Scheppers et al., 2006). The missing piece in these prior examinations may have been including mediating variables, such as stigma. Beliefs about health and perception of illness have also been implicated to be examined closer and the not significant direct model lends support to further investigate mediating variables in the decision making process of seeking treatment.

Although the mediational model and the full model were a good fit for the data, the direct paths in the full model were not significant, which is to be expected given that the direct model was not significant. Therefore, the full model did not appear to add any additional improvement of fit, over the mediational model. As a result, the mediational model appeared to best fit the data and was chosen as the best fitting, due to parsimony (Bentler, 2004). These results were only in partial support of hypothesis 1; stigma about mental health treatment did mediate the relationship between acculturation and attitudes towards seeking mental health treatment. Specifically, it was found that the less identification with heritage culture and lower ethnic identity, the higher the stigma is towards seeking mental health treatment. Therefore, a strong relationship with one's heritage culture and strong ethnic identity may be a protective factor against having stigma, by functioning as some sort of buffer. However, race-related stress was not a significant factor.

Acculturation has been found to have inconsistent relationships to attitudes towards seeking mental health treatment in the literature. The current data provides more support for examining the construct of stigma as crucial in the decision to seek mental health treatment.

Hypothesis 1a was not supported; race-related stress was not a direct predictor of attitudes towards seeking mental health treatment and it was not significantly related to stigma or attitudes towards help seeking. This hypothesis may not have been supported because of the predominantly White sample, who are not expected to have as many race-related stressors (Waelde et al., 2010). Hypothesis 1b was not supported, since the direct path between acculturation and attitudes towards mental health seeking

was not significant, further lending support to examining the mediating variable of stigma.

Hypothesis 1c was partially supported, with acculturation being a significant predictor of stigma about mental health treatment; however, the two constructs are negatively correlated, as opposed to the predicted positive correlation. Higher identification with heritage culture was found to be a potential barrier for seeking mental health treatment (Schepper et al., 2006), although the assumption was that higher identification with heritage culture meant lower identification with mainstream culture. In the current sample, participants identified highly with both heritage and mainstream culture. Given the predominance of White participants, for some participants both subscales may be measuring the same cultural relationship. Since formal mental health treatment was viewed as more of a Western concept, it was speculated that lower identification with heritage culture may imply lower levels of stigma. In contrast, the current result indicates that higher identification with heritage culture and higher identification with ethnic identity are associated with lower levels of stigma. This may be due the highly correlated relationship between heritage and mainstream culture; at any rate, higher identification with mainstream culture is associated with lower level of stigma. However, there is another component to the acculturation construct, which is ethnic identity. Therefore, the current result suggests that having a high identification with heritage culture and a high ethnic identity may be a protective factor against stigma about mental health treatment.

Hypothesis 1d was partially supported, with stigma being significantly, but positively related to attitudes as opposed to a negative correlation. It is possible that



those who have a need to seek mental health treatment are both more aware of stigma and the need to seek the treatment. In addition, stigma was a significant mediator between acculturation and attitudes towards seeking mental health treatment in all the three models, direct, mediational, and full.

### **Race/Ethnicity and Gender: Stigma, Mental Health, and Help-seeking**

Comparable to the results in the White sample, acculturation and ethnic identity were not significant predictors of attitudes towards seeking mental health treatment. Results were similar to another study by Ting & Hwang (2009), where acculturation was measured bidimensionally among college students. Similar to the current study, there was not much variability in acculturation in their sample as well. Although heritage and mainstream culture were not significant predictors of intentions to seek counseling, ethnic identity was a significant predictor of intentions to seeking counseling. This result may be reflective of the high proportion (81.4%) of the overall current sample indicating that they would seek mental health treatment in the next six months, if needed. Cultural factors in the overall sample were not related to stigma among racial/ethnic minority participants. In the White sample, mainstream culture was a significant predictor of personal stigma and heritage culture was a significant predictor of cultural stigma. Since the racial/ethnic minority sample is smaller, both cultural and personal stigmas, which are 3-item subscales, may not have been significant in the multiple regressions. In addition, none of the stigma variables were significant predictors of attitudes and/or intentions towards seeking mental health treatment, in contrast to the White sample, where personal stigma was a significant predictor of attitudes towards seeking mental health treatment. It is possible that

stigma towards mental health treatment is mediated by other potential cultural experiences within racial/ethnic minorities, such as distrust of the system.

Increased affiliation with mainstream culture was associated with increased stress for the racial/ethnic minority sample, indicating that association with mainstream culture is not a protective factor against stress. However, association with heritage culture is protective factor against stress, with increased affiliation with heritage culture being associated with lower levels of stress. These results further lend support to the importance of exploring cultural relationship from a bidimensional perspective. In addition, the disparate results between mainstream acculturation and heritage acculturation with stress are particularly of note given the high positive correlation between heritage and mainstream acculturation. Overall, acculturation being significantly related to stress offers further support to investigate mental health variables in relation to cultural variables.

Race-related stress was a significant predictor of stress and anxiety as well. In the White sample, race-related stress was a significant predictor of anxiety. Given the high correlation among the subscales of anxiety, stress, and depression, the subscales may not be interpreted as indicative of Major Depressive Disorder or an anxiety disorder. However, generally, the results regarding race-related stress are consistent with greater stress being correlated with symptoms of anxiety and distress (Waelde et al., 2010).

In support of hypothesis 4a and 5a, racial/ethnic minorities had higher levels of race-related stress than Whites, as expected and consistent with the literature (Waelde et al., 2010). However, there was no significant difference in levels of acculturation,

which is not in support of hypothesis 4a and 5a. In partial support of hypothesis 4b and 5b, Nonwhites had higher levels of cultural stigma than Whites. Cultural stigma items, adapted from the personal stigma scale for this particular study, only showed good internal consistency of the items for the Nonwhite participants. This, as well as the significant group difference between Nonwhites and Whites for cultural stigma lends support to further exploring stigma that may be specific to one's cultural group when it pertains to mental health treatment. Past research examined public stigma, personal stigma, and self-stigma as perceived by the mainstream culture only. Although there no significant difference between Whites and Nonwhites for public, personal, and self-stigma, as predicted in hypotheses 4b and 5b, past research has found such differences and cultural stigma may be a key variable in explaining these differences. A potential reason there may not be significant differences between the groups on other indicators of stigma may be because approximately half the racial/ethnic minority sample was Hispanic/Latino and in a particular study examining stigma from the same framework in an urban college sample, Latinos were found to have less stigma compared to their counterparts (Rao, Feinglass, & Corrigan, 2007). Overall, given the group differences in cultural stigma and past literature suggesting racial/ethnic group differences regarding stigma, stigma should continue to be explored further as an important component of the decision making process to seek mental health treatment.

In support of hypotheses 4b and 5b, male participants endorsed higher levels of personal stigma compared to female participants, which is a factor to further examine in the differences of help-seeking between men and women, with men particularly

delaying treatment seeking (Galdas, Cheater, & Marshall, 2005). In addition, personal stigma items had the greatest internal consistency for male participants (.79) compared to other measures of stigma. Self-stigma, in particular, did not have good internal consistency with male participants. In addition, attitudes towards seeking help had poor internal consistency for male participants. Future studies could examine psychometric differences regarding gender, stigma, and help seeking attitudes. Additional items that are particularly corresponding to masculinity and help seeking would further the research in developing interventions to address lower levels of help-seeking among men.

Despite the differences regarding some types of stigma across race/ethnicity and gender, there were no significant differences in the type of help sought, indicating that when help is sought male/female and White/Nonwhite are equal in seeking out informal, formal, and electronic sources of help. This result suggests that efforts to address help seeking behaviors may not be about the type of help available, but that intervention would occur earlier in the decision making cycle to increase the chance of seeking help.

Contrary to the predictions of hypotheses 4c and 5c, White and Nonwhite participants did not differ on attitudes towards seeking help and intentions of seeking counseling. However, there were significant differences between male and female participants on attitudes towards seeking help, but in the opposite direction, with males having slightly better attitudes towards seeking help than females. This result further supports the complex nature of stigma for male participants and their subsequent decision making process of seeking mental health treatment.

Despite significant differences in race-related stress, which is related to higher levels of anxiety and stress, there are no significant group differences between Whites and Nonwhites on mental health variables, which is not in support of hypotheses 4d and 5d. The non-significance may be due to the sample being relatively healthy, both physically and mentally. Although there were significant group differences in gender for depression, anxiety, and stress, which supports hypotheses 4d and 5d, the lack of micro-level differences makes it difficult to interpret the nature of the difference.

### **Limitations**

Despite some of the significant findings in this study, there are some limitations to consider. The sample in the study was not as diverse as anticipated in terms of race/ethnicity and generational status in the US. As a result, it is difficult to interpret some of the results as they relate to acculturation. In addition, the sample is a relatively healthy cohort, in terms of physical and mental health. Since this is not a psychiatric sample, the results related to stigma and attitudes and/or intentions of seeking mental health treatment may not be generalizable to a more need-based population. In addition, the study did not measure longitudinal assess if attitudes and/or intention to seek help predicted actual behavior to seek help. Previous literature demonstrates that there can be an established link between attitudes and behaviors. The current sample is a young cohort and may not have been exposed as much to the society's attitudes about stigma towards mental health treatment. Furthermore, the current study examined mental health treatment factors in a closed access system, where college/university students had access to the school counseling center and other

health services. However, attitudinal barriers have been found to be just as prevalent, if not more prevalent, than structural barriers (Jagdeo, Cox, Stein, & Sareen, 2009).

## **Conclusions**

Addressing barriers to seeking mental health treatment is a complex area of study, with many variables to consider. Stigma and acculturation are key variables in predicting attitudes towards seeking mental health treatment. Particularly, stigma mediates the relationship between acculturation and attitudes towards seeking mental health treatment suggesting that researchers consider measuring stigma when studying cultural variables, within the context of treatment seeking. The model was significant even within a predominantly White, female, and non-first generation college sample, lending support to previous results that stigma is widespread problem. Although the nature of some of relationships between the different types of stigma and acculturation was not always clear, they were significantly associated with one and other, which warrants further exploration.

Another key issue to consider when examining mental health factors is the measurement of stigma, acculturation, ethnic identity, and attitudes towards treatment seeking. It is crucial to assess the psychometric properties of these measures along gender and race/ethnicity. There was heterogeneity with the relationship of acculturation with variables study variables. However, a stronger relationship to a cultural group (either mainstream or heritage) appears to be buffer in experiencing race-related stressors, which were associated with symptoms of distress, regardless of race/ethnicity. A strong relationship with heritage culture and a high ethnic identity may not necessarily be risk factors for lower attitudes of seeking mental health

treatment; they may potentially serve as protective factors. The results also lend support to measuring cultural variables in various ways, including heritage acculturation, ethnic identity, and race-related stress, given the different relationships that the cultural variables had with stigma and attitudes and intentions towards seeking treatment. The literature indicates that ethnic identity is a component of acculturation. The VIA-heritage subscale measures behavioral components of acculturation and the MEIM-R measures the strength of one's relationship and sense of belongingness to his/her ethnic group.

Furthermore, cultural stigma, examining an individual's cultural group's view of mental health treatment shows promise for further exploration, given the significance of this factor for Nonwhite participants, in particular. In contrast, self-stigma did not contribute significantly to attitudes towards help seeking and was not significantly related to any study variables. Given the relatively healthy sample in this study, there may not yet have been an internalization of public stigma. In designing interventions to address stigma, public stigma and personal stigma should be directly focused on more prominently, particularly among healthy young adult samples, who may not yet have developed self-stigma.

Another area of further study is the measurement of help-seeking for males may in particular need to incorporate issues unique to men, such as masculinity, since the literature indicates that men are less likely to seek help. Overall, the results in this study support further exploration of cultural factors, in relation to stigma, as part of the decision making process to seek mental health treatment.

## **Appendices**

### Appendix A: Survey Measures

Demographics

General Help-Seeking Questionnaire (GHSQ)

Actual Help-Seeking Questionnaire (AHSQ)

Depression Anxiety Stress Scale (DASS-21)

Discrimination-Devaluation Scale (DDS)

Self-Stigma Scale (SSS)

Attitudes Toward Seeking Professional Psychological Help (ATSPPH)

Intention of Seeking Counseling Inventory (ISCI)

Vancouver Index of Acculturation (VIA)

Cultural Stigma (CS)

Race-related Events Scale (RRES)

Multigroup Ethnic Identity Measure-Revised (MEIM-R)



**Appendix A**  
**Survey Measures**

**Demographics<sup>1</sup>**

1. Please indicate where you heard about the survey.
  - Lower level (100 or 200 level) psychology course
  - Upper level (300+) psychology course
  - Course other than psychology
  - Flyer
  - Email
  - Word of mouth
  - Other \_\_\_\_\_
2. Please indicate your gender:  M  F  Other
3. Please indicate your race/ethnicity:
  - Black/African-American  Asian  Hispanic/Latino  White
  - Native American  Biracial  Other
4. Please indicate your age: \_\_\_\_\_
5. Choose your highest education level completed:
  - High School  Freshman Year  Sophomore Year  Junior Year  Senior Year  Graduate School
6. My mother's highest level of education:
  - High school or less
  - Some college
  - College degree
  - Graduate degree
  - Don't know
7. My father's highest level of education:
  - High school or less
  - Some college
  - College degree
  - Graduate degree
  - Don't know

---

<sup>1</sup> Questions 6-11 are from Kue (2010).

8. My family's income is:

- Not sufficient to cover basic living expenses
- Sufficient to cover living expenses but not my tuition at all
- Sufficient to cover living expenses and my tuition with some loans
- Sufficient to cover living expenses and my tuition but not much else
- Sufficient for a comfortable lifestyle for my parents and me
- I am not supported financially by my family at all

9. I am paying for college by: (Check all that apply)

- One full-time job
- One part-time job
- Two or more part-time jobs
- Scholarships or grants
- Student or parent loans
- Support from parents
- Don't know
- Other support, please specify \_\_\_\_\_

10. For me, paying for my college tuition and expenses is:

- Very stressful
- Somewhat stressful
- Somewhat not stressful
- Not at all stressful

11. In addition to going to college, I am responsible for: (Check all that apply)

- Caring for my parent(s)
- Caring for my child(ren)
- Caring for my sibling(s)
- Volunteering
- Working one or more jobs
- Other, please specify \_\_\_\_\_

12. English fluency

- What is your primary language?
- Do you speak English fluently?
- What other languages are you fluent in? \_\_\_\_\_

13. Please indicate your generation status in the United States:

- 1st generation (born outside the United States and came as an adult)
- 1.5 generation (immigrated to the United States by age 13)
- 2nd generation (born in the United States, at least one parent was not born here)
- 3rd generation (born in the United States, at least one parent was born here)
- 4th+ generation (born in the United States, one or more grandparents were also born here)

### **Help-seeking History/Intention**

Please answer the following questions as honestly as possible; you will not be judged for the answers.

14. Thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good? \_\_\_\_\_
15. Thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good? \_\_\_\_\_
16. Would you say that in general your physical health is excellent, very good, good, fair, or poor? \_\_\_\_\_
17. Would you say that in general your mental health is excellent, very good, good, fair, or poor? \_\_\_\_\_
18. Are you now taking medicine or receiving treatment from a doctor or other health professional for any type of mental health condition or emotional problem? Yes No
19. Do you feel the need to seek mental health treatment? Yes No
20. Do you expect to get mental health treatment in the next 6 months, if you believe that you need it? Yes No
21. Do you have resources where you could get mental health treatment, if needed? Yes No



**Actual Help Seeking Questionnaire (AHSQ; adapted from Rickwood and Braithwaite, 1994)**

Below is a list of people who you might seek help or advice from if you were experiencing a personal or emotional problem. Tick any of these who you have gone to for advice or help in the **past 2 weeks** for a personal or emotional problem and if you have ever gone for advice or help (in the **lifetime** category).

Past 2 Weeks      Lifetime

- a. Partner (e.g., boyfriend or girlfriend)
- b. Friend (not related to you)
- c. Parent
- d. Other relative/family member
- e. Mental health professional (e.g. psychologist, social worker, counselor)
- f. Phone helpline
- g. Doctor/Primary Care Physician
- h. Professor/Academic Advisor
- i. Minister or religious leader (e.g. Priest, Rabbi, Imam, Chaplain)
- j. Chat rooms
- k. I would not seek help from anyone
- l. I would seek help from another not listed above (please list in the space provided, (e.g., work colleague. If no, leave blank)\_\_\_\_\_

**Depression Anxiety and Stress Scale-21 (DASS-21; Lovibond & Lovibond, 1995)**

Please read each statement and mark the number that indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

*The rating scale is as follows:*

- 0 Did not apply to me at all
- 1 Applied to me to some degree, or some of the time
- 2 Applied to me to a considerable degree, or a good part of the time
- 3 Applied to me very much, or most of the time

- |  |   |   |   |   |
|--|---|---|---|---|
| 1 I found it hard to wind down   | 0 | 1 | 2 | 3 |
| 2 I was aware of dryness in my mouth   | 0 | 1 | 2 | 3 |
| 3 I couldn't seem to experience any positive feeling at all  | 0 | 1 | 2 | 3 |
| 4 I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion) | 0 | 1 | 2 | 3 |
| 5 I found it difficult to work up the initiative to do things  | 0 | 1 | 2 | 3 |
| 6 I tended to over-react to situations   | 0 | 1 | 2 | 3 |
| 7 I experienced trembling  | 0 | 1 | 2 | 3 |
| 8 I felt that I was using a lot of nervous energy  | 0 | 1 | 2 | 3 |
| 9 I was worried about situations in which I might panic and make a fool of myself  | 0 | 1 | 2 | 3 |
| 10 I felt that I had nothing to look forward to  | 0 | 1 | 2 | 3 |
| 11 I found myself getting agitated   | 0 | 1 | 2 | 3 |

*Reminder of rating scale:*

- 0 Did not apply to me at all
- 1 Applied to me to some degree, or some of the time
- 2 Applied to me to a considerable degree, or a good part of the time
- 3 Applied to me very much, or most of the time

12	I found it difficult to relax	0	1	2	3
13	I felt down-hearted and blue	0	1	2	3
14	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
15	I felt I was close to panic	0	1	2	3
16	I was unable to become enthusiastic about anything	0	1	2	3
17	I felt that I wasn't much as a person	0	1	2	3
18	I felt that I was rather touchy	0	1	2	3
19	I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat)	0	1	2	3
20	I felt scared without any good reason	0	1	2	3
21	I felt that life was meaningless	0	1	2	3



**Discrimination-Devaluation Scale (D-D revised, Eisenberg, Downs, Golberstein, & Zivin, 2009)**

**Please choose from the following answer choices: 0 = *strongly agree*, 1 = *agree*, 2 = *somewhat agree*, 3 = *somewhat disagree*, 4 = *disagree*, 5 = *strongly disagree*.**

**Perceived public stigma**

*Please indicate whether you agree or disagree with the following statements.*

1. Most people would willingly accept someone who has received mental health treatment as a close friend.

0 1 2 3 4 5

2. Most people believe that a person who has received mental health treatment is just as intelligent as the average person.

0 1 2 3 4 5

3. Most people believe that someone who has received mental health treatment is just as trustworthy as the average person.

0 1 2 3 4 5

4. Most people would accept someone who has fully recovered from a mental illness as a teacher of young children in a public school.

0 1 2 3 4 5

5. Most people feel that receiving mental health treatment is a sign of personal failure.\*

0 1 2 3 4 5

6. Most people would not hire someone who has received mental health treatment to take care of their children, even if he or she had been well for some time.\*

0 1 2 3 4 5

7. Most people think less of a person who has received mental health treatment.\*

0 1 2 3 4 5

8. Most employers will hire someone who has received mental health treatment if he or she is qualified for the job.

0 1 2 3 4 5

9. Most employers will pass over the application of someone who has received mental health treatment in favor of another applicant.\*

0 1 2 3 4 5

10. Most people in my community would treat someone who has received mental health treatment just as they would treat anyone.

0 1 2 3 4 5

11. Most young adults would be reluctant to date someone who has been hospitalized for a serious mental disorder.\*

0 1 2 3 4 5

12. Once they know a person has received mental health treatment, most people will take that person's opinions less seriously.\*

0 1 2 3 4 5

### **Personal stigma**

*Please indicate whether you agree or disagree with the following statements.*

1. I would willingly accept someone who has received mental health treatment as a close friend.

0 1 2 3 4 5

2. I would think less of a person who has received mental health treatment.\*

3. I believe that someone who has received mental health treatment is just as trustworthy as the average person.

0 1 2 3 4 5

**\* indicates reverse scored items**

**Self-Stigma of Seeking Help (SSOSH, Vogel, Wade, & Haake, 2006)**

**Please choose from the following answer choices:** 1 (*strongly disagree*), 2 (*agree*), 3 (*agree and disagree equally*), 4 (*disagree*), 5 (*strongly agree*).

1. I would feel inadequate if I went to a therapist for psychological help.

1                      2                      3                      4                      5

2. My self-confidence would NOT be threatened if I sought professional help.\*

1                      2                      3                      4                      5

3. Seeking psychological help would make me feel less intelligent.

1                      2                      3                      4                      5

4. My self-esteem would increase if I talked to a therapist.\*

1                      2                      3                      4                      5

5. My view of myself would not change just because I made the choice to see a therapist.\*

1                      2                      3                      4                      5

6. It would make me feel inferior to ask a therapist for help.

1                      2                      3                      4                      5

7. I would feel okay about myself if I made the choice to seek professional help.\*

1                      2                      3                      4                      5

8. If I went to a therapist, I would be less satisfied with myself.

1                      2                      3                      4                      5

9. My self-confidence would remain the same if I sought help for a problem I could not solve.\*

1                      2                      3                      4                      5

10. I would feel worse about myself if I could not solve my own problems.

1

2

3

4

5

**Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS;  
Fischer & Farina, 1995)**

Please answer the following questions by choosing the best option.

1. If I believed I was having a mental breakdown, my first inclination would be to get professional attention.

Agree                  Partly Agree                  Partly Disagree                  Disagree

2. The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.\*

Agree                  Partly Agree                  Partly Disagree                  Disagree

3. If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in psychotherapy.

Agree                  Partly Agree                  Partly Disagree                  Disagree

4. There is something admirable in the attitude of a person who is willing to cope with his or her conflicts and fears *without* resorting to professional help.\*

Agree                  Partly Agree                  Partly Disagree                  Disagree

5. I would want to get psychological help if I were worried or upset for a long period of time.

Agree                  Partly Agree                  Partly Disagree                  Disagree

6. I might want to have psychological counseling in the future.

Agree                  Partly Agree                  Partly Disagree                  Disagree

7. A person with an emotional problem is not likely to solve it alone; he or she is likely to solve *it* with professional help.

Agree                  Partly Agree                  Partly Disagree                  Disagree

8. Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me.\*

Agree                  Partly Agree                  Partly Disagree                  Disagree

9. A person would work out his or her own problems; getting psychological counseling would be a last resort.\*

Agree

Partly Agree

Partly Disagree

Disagree

10. Personal and emotional troubles, like many things, tend to work out by themselves. \*

Agree

Partly Agree

Partly Disagree

Disagree





8. Difficulties dating						
1	2	3	4	5	6	
(very unlikely)						(very likely)
9. Choosing a major						
1	2	3	4	5	6	
(very unlikely)						(very likely)
10. Difficulty in sleeping						
1	2	3	4	5	6	
(very unlikely)						(very likely)
11. Drug problems						
1	2	3	4	5	6	
(very unlikely)						(very likely)
12. Inferiority feelings						
1	2	3	4	5	6	
(very unlikely)						(very likely)
13. Test anxiety						
1	2	3	4	5	6	
(very unlikely)						(very likely)
14. Difficulty with friends						
1	2	3	4	5	6	
(very unlikely)						(very likely)
15. Academic work procrastination						
1	2	3	4	5	6	
(very unlikely)						(very likely)
16. Self-understanding						
1	2	3	4	5	6	
(very unlikely)						(very likely)

17. Loneliness

1  
(very unlikely)

2

3

4

5

6  
(very likely)

**Vancouver Index of Acculturation (VIA; Ryder, Alden & Paulhus, 2000)**

Please answer each question as carefully as possible by circling one of the numbers to the right of each question to indicate your degree of agreement or disagreement.

Many of these questions will refer to your heritage culture, meaning the culture that has influenced you most (other than American culture). It may be the culture of your birth, the culture in which you have been raised, or another culture that forms part of your background. If there are several such cultures, pick the one that has influenced you most (e.g. Irish, Chinese, Mexican, Black). If you do not feel that you have been influenced by any other culture, please try to identify a culture that may have had an impact on previous generations of your family.

Please write your heritage culture in the space provided:

\_\_\_\_\_

Use the following key to help guide your answers:

Strongly Disagree		Disagree		Neutral/Depends		Agree		Strongly Agree
1	2	3	4	5	6	7	8	9

1. I often participate in my heritage cultural traditions  
1 2 3 4 5 6 7 8 9
2. I often participate in mainstream American cultural traditions  
1 2 3 4 5 6 7 8 9
3. I would be willing to marry a person from my heritage culture  
1 2 3 4 5 6 7 8 9
4. I would be willing to marry an American person  
1 2 3 4 5 6 7 8 9
5. I enjoy social activities with people from the same heritage culture as myself  
1 2 3 4 5 6 7 8 9
6. I enjoy social activities with typical American people  
1 2 3 4 5 6 7 8 9
7. I am comfortable working with people of the same heritage culture as myself  
1 2 3 4 5 6 7 8 9
8. I am comfortable working with typical American people  
1 2 3 4 5 6 7 8 9
9. I enjoy entertainment (e.g. movies, music) from my heritage culture  
1 2 3 4 5 6 7 8 9
10. I enjoy American entertainment (e.g. music, movies)  
1 2 3 4 5 6 7 8 9
11. I often behave in ways that are typical of my heritage culture  
1 2 3 4 5 6 7 8 9
12. I often behave in ways that are 'typically American'  
1 2 3 4 5 6 7 8 9

13. It is important for me to maintain or develop the practices of my heritage culture  
1 2 3 4 5 6 7 8 9
14. It is important for me to maintain or develop American cultural practices  
1 2 3 4 5 6 7 8 9
15. I believe in the values of my heritage culture  
1 2 3 4 5 6 7 8 9
16. I believe in mainstream American values  
1 2 3 4 5 6 7 8 9
17. I enjoy the jokes and humor of my heritage culture  
1 2 3 4 5 6 7 8 9
18. I enjoy typical American jokes and humor  
1 2 3 4 5 6 7 8 9
19. I am interested in having friends from my heritage culture  
1 2 3 4 5 6 7 8 9
20. I am interested in having American friends  
1 2 3 4 5 6 7 8 9

Cultural Stigma Questionnaire (adapted from Personal Stigma subscale of the Discrimination-Devaluation Scale)

**Please choose from the following answer choices: 0 = *strongly agree*, 1 = *agree*, 2 = *somewhat agree*, 3 = *somewhat disagree*, 4 = *disagree*, 5 = *strongly disagree*.**

1. Someone from my cultural/heritage group would willingly accept someone who has received mental health treatment as a close friend. 0 1 2 3 4 5

2. Someone from my cultural/heritage group would think less of a person who has received mental health treatment.\* 0 1 2 3 4 5

3. Someone from my cultural/heritage group would believe that someone who has received mental health treatment is just as trustworthy as the average person.

0 1 2 3 4 5

**Race-Related Events Scale (RES; Waelde et al., 2010)**

Please circle “YES” if this has ever happened to you **because** of your race or ethnicity and “NO” if it has not:

1. Treated rudely or coldly because of my race or ethnicity Yes No
2. Ignored because of my race or ethnicity Yes No
3. Treated unfairly by teacher or boss because of my race or ethnicity Yes No
4. Insulted or called an insulting name because of my race or ethnicity Yes No
5. Told to leave a place and not come back because of my race or ethnicity Yes No
6. Followed by someone because of my race or ethnicity Yes No
7. Harassed by police or security guards because of my race or ethnicity Yes No
8. Verbal conflict with someone because of my race or ethnicity Yes No
9. Physical fight with someone because of my race or ethnicity Yes No
10. Someone hurt my family member because of his/her race or ethnicity Yes No
11. Someone threw something at me because of my race or ethnicity Yes No
12. Someone pushed or shoved me because of my race or ethnicity Yes No
13. Someone stole something from me because of my race or ethnicity Yes No
14. Someone chased me because of my race or ethnicity Yes No
15. Someone beat me or hurt me because of my race or ethnicity Yes No
16. Threatened with a knife, gun or other weapon because of my race or ethnicity  
Yes No
17. Someone threatened to kill me because of my race or ethnicity Yes No
18. Heard about someone (who is the same race or ethnicity as me) getting injured or  
killed because of their race or ethnicity Yes No

19. Saw someone (who is the same race or ethnicity as me) get treated in a racist or prejudiced way Yes No

20. Saw someone (who is the same race or ethnicity as me) almost get seriously injured or killed because of their race or ethnicity Yes No

21. Saw someone (who is the same race or ethnicity as me) seriously injured because of their race or ethnicity Yes No

22. Saw someone (who is the same race or ethnicity as me) get killed because of their race or ethnicity Yes No

23. Other (please specify): \_\_\_\_\_ Yes No





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