INFLUENCES ON MENTAL HEALTH SERVICE UTILIZATION FOR VIETNAMESE YOUNG ADULTS

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DEDICATION

I would like to thank the members of my Graduate Committee for guiding me through the process of completing my very first research study and thesis. I would also like to thank all my friends and family members who gave me the much-needed support to finish this project. Lastly, I would like to give my appreciation for all the advice given to me by the faculty members of The University of Texas Southwestern Medical Center's Rehabilitation Counseling program.

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by

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THESIS

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Abstract

BACKGROUND: Vietnamese-Americans underutilize mental health services. Several factors have been proposed to influence rates of service utilization within this population, including cultural identification and families' acceptance of such services. Most measures of cultural identification are lengthy and burdensome. Furthermore, studies examining the link between parental attitudes towards mental health services and their children's attitudes have only included children who were under the age of 18 – therefore unable to legally seek their own services. This study was designed to address these gaps by developing and testing brief scales of identification with Vietnamese and American culture, and obtaining information about the influence of parents' attitudes on older adolescents and young adults in this cultural group where a strong family orientation persists through the lifespan. A third aim of the study was to examine the role of the participants' acceptance of mental health services both as a predictor for utilization of such services, and as a mediator between other predictors and utilization.

SUBJECTS: The participants in the study included a total of 87 Vietnamese-American young adults between the ages of 18 to 30 years old. Participants were recruited from the Texas Exes Asian Alumni Network (TEAAN) in Austin, Texas and from the Mother of Perpetual Faith Catholic Church's youth group. Recruitment also occurred through a method called the "snowball effect," where those involved in the study were asked to help recruit additional participants.

METHOD: Surveys were completed on-line. Participants reported their mental health service utilization in the past 12 months. They also were administered measures of potential predictors: cultural identification scales, the participants' distress level, perceived stigma towards mental

health services, perceived parental acceptance of mental health services, and their own (personal) acceptance of mental health services.

RESULTS: The psychometric properties of the brief cultural identification scales were examined; the scales have good validity, but slightly low reliability. None of the proposed factors were found to be significant predictors of formal mental health service utilization, but items assessing distress level were found to correlate with service utilization at a trend level. The only factor found to predict personal acceptance was perceived parental acceptance of these services. Because personal acceptance was not found to be a predictor of mental health service use, it could not serve as a mediating variable between the other factors and service utilization.

DISCUSSION: Before the originally developed cultural identity scales can be used for research, further development of the scales will be necessary. A limitation of this study is that there were very few participants who reported formal mental health service utilization, reducing the power to determine prediction to this variable. In this sample, only distress was found to be even a marginal predictor of mental health service use, suggesting that the low rates of mental health service utilization found in these Vietnamese young adults may in fact be due to actual low levels of psychological distress. The fact that parental acceptance significantly predicted personal acceptance of mental health services among participants supports the idea that parental attitudes towards mental health services may have been adopted by their children, even after they were independent enough to seek their own services. Future research and clinical implications are discussed.

Keywords: Vietnamese, help-seeking, bicultural, unicultural, service utilization.

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LIST OF ABBREVIATIONS

MH– Mental health

VN – Vietnamese

CHAPTER ONE

Introduction

Mental Health Utilization in Vietnamese Young Adults

Data currently available on the mental health of Vietnamese-Americans is limited, but research has shown that mental health service utilization by this population is relatively low (e.g. Abe-Kim et al., 2007; Sorkin, Tan, Hays, Mangione, & Ngo-Metzer, 2008; US Dept of Health and Human Services, 2001; US Dept of Health and Human Services, 1999). One possibility for this is that the members of the Vietnamese community do not suffer as much from psychological issues, and therefore do not need to seek help. This is not likely the case, since several studies have shown high rates of psychological disturbances such as PTSD, anxiety, depression, and somatization disorders in Vietnamese-Americans (e.g. Caplan, Whitmore, & Choy, 1989; Gong-Guy, 1987; Hauff & Vaglum, 1994; Hsu, Davies, & Hansen, 2004; Tung, 1986). The more likely explanation is that despite their disturbances, certain factors are serving as barriers to mental health help-seeking among Vietnamese-Americans for their psychological issues.

Parental Influences on Help-Seeking

With the Vietnamese culture being collectivist in nature, there is a relatively large emphasis on family compared to mainstream American culture; therefore family members play a central role in the Vietnamese individual's life (Bogman & Edwards, 1984; Matsuoka, 1990; Nguyen, 1990). To Vietnamese-Americans, one's actions are believed not only to reflect upon oneself, but the family as well (Yamamoto, 1978). Important decisions are not decided on an individual basis, but must be agreed upon by the family as a whole (Hickey, 1964; Nguyen & Williams, 1989: U.S. General Accounting office, 1994). Studies looking at various cultures

have found that parental beliefs and attitudes had an influence on their children's help-seeking behavior (e.g. Bussing, Schoenberge, & Perwien, 1998; Chandra, Scott, Jaycox, Meredith, Tanielian, & Burnam, 2009; Yeh, Hough, Fakhry, McCabe, Lau, & Garland, 2005). This effect can be hypothesized to be even greater in Vietnamese families, where family is such a big focus. Important to note, is that these studies have focused on the relationship between parents and children who were still under the age of 18. The influence parents had on these children may have been high due to them having more direct control over their children's ability to seek treatment. To the author's knowledge, no study has yet examined the influence parents have on young adults who are old enough to independently seek their own mental health services. Because of this, one cannot determine whether the influence parents have on help-seeking behavior is more practical or social in nature.

Other Influences on Help-Seeking

Along with parental influences, multiple other factors have been proposed to play a role in mental health service utilization. Studies looking at these factors have produced mixed results, and therefore their roles are still inconclusive. More data is needed to help clarify the actual relationship between psychological service use and such factors. For example, one's own beliefs towards formal mental health treatment most likely will influence whether treatment will be sought if needed. Not much data is available on the acceptance levels of Vietnamese young adults towards formal mental health services. Along with that, it might also be argued that higher distress levels will lead to higher levels of treatment-seeking behavior, but studies which have focused on this relationship have produced mixed results (e.g. Tracey, Leong,Ying & Miller, 1992). Stigma toward psychological disorders and mental health treatments has been

associated with lower rates of service utilization (e.g. US Department of Health and Human Services, 2001; US Department of Health and Human Services, 1999). That is, the more one believes they will be negatively viewed for seeking psychological services, the less likely one will actually seek them. Another factor commonly mentioned in the literature is cultural identification, or how much one identifies with American culture, and culture of origin. It is believed that the more one identifies with Western culture, the more acceptable mental health services will be (e.g. Kim & Omizo, 2003; Luu, Leung & Nash, 2009; Tata & Leong, 1994). Since the Vietnamese cultures holds rather negative views on mental health compared to American culture, it is believed that higher identification with Vietnamese culture would most likely decrease acceptance of psychological services (e.g. Shin, 2002; Whaley, 1997).

Brief Multidimensional Cultural Identity Scale

Many scales have been developed to assess an individual's level of identification with a certain culture (e.g. Suinn, Rickard-Figueroa, Lew, & Vigil, 1987; Chung, Kim, & Abreu, 2004; Ryder, Alden, & Paulhus, 2000). However, these scales are rather lengthy. It can be difficult to incorporate such scales into a brief survey without making the overall survey too long and time-consuming. Also, a majority of these scales are based on a unicultural view of cultural identification, where an individual's cultural identification lies on a continuum with American culture at one end, and culture of origin at the other (Chun, Organista, & Marin, 2003; Szapocznik, Kurtines, & Fernandez; 1980). A new view of cultural identification has begun to emerge. The bicultural view sees identification with different cultures as independent of each other (Chun et al, 2003). Therefore, one can identify strongly with American culture, while still

having strong identification with their culture of origin. There is a need for brief scales that tap cultural identification in a bicultural manner.

Current Study

The main aim of the current study is to assess the role that parental acceptance of mental health services, one's personal acceptance of mental health services, one's distress level, stigma perceptions, and cultural identification all play in the seeking of formal mental health services among Vietnamese young adults. Formal mental health services will be considered as treatment from psychologists, counselors, or psychiatrists. The study will also examine the role of personal acceptance as a mediator between distress level, perceived parental acceptance, stigma perceptions, and cultural identification and Vietnamese college students' utilization of mental health services. That is, do the factors of distress level, perceived parental acceptance, cultural identification, stigma perception, and one's own acceptance all independently play a role in treatment-seeking behavior, or do the first four factors all influence acceptance, which in turn influences treatment-seeking behavior. A final aim is to test the internal consistency of a brief cultural identity scale that was originally developed by the authors. The scale is based on a bicultural (as opposed to unicultural) approach to cultural identification.

The hypotheses of the study are as follows: (A) Items assessing preference for language, social relationships, dating , food, and observance of traditions within each culture (American and Vietnamese) will have acceptable internal consistency , and there will be some evidence for construct validity. (B) Higher levels of distress, greater stigma perceptions, higher perceived parental acceptance of mental health services, higher personal acceptance, greater stigma perceptions, stronger identification with American culture, and lower identification with

Vietnamese culture will all be correlated with higher formal mental health service utilization. (C) Higher levels of distress, greater stigma perceptions, higher perceived parental acceptance of mental health services, greater stigma perceptions, stronger identification with American culture, and lower identification with Vietnamese culture will all also be correlated with higher acceptance of formal mental health treatment in Vietnamese college students. (D) The relationships between the predictors higher levels of distress, higher perceived parental acceptance, greater stigma perceptions, stronger identification with American culture and lower identification with American culture, and utilization, will be mediated by higher acceptance of mental health services.

CHAPTER TWO

Review of the Literature

Mental Health Within the Vietnamese Community

Prevalence of Mental Distress

With increasing awareness of the need for cultural competency in the field of mental heath, many studies have been conducted which focused on the Asian population as a whole. While this has been helpful in increasing our knowledge of oriental cultures, results from such studies cannot be generalized to all Asian subgroups. Due to the differing experiences that different Asian subgroups have faced, it has been proposed that studies focusing on more specific cultures within Asia could provide more useful information (Gloria & Ho, 2003; Suzuki, 1995). The Vietnam War from 1954 to 1975, and subsequent mass refugee immigration from the homeland, have both provided the Vietnamese population with a rather unique history. Unfortunately, little research is currently available on the Vietnamese community and mental health, but from what we do know, there is little doubt that individuals within this community could benefit from use of psychological services. Both general studies on Asian Americans, as well as studies that focused specifically on Vietnamese individuals, have found relatively high rates of psychological disturbances. A few comparison studies concluded that Asian students had equal or higher levels of depression than their Caucasian counterparts (Okazaki, 1997; USDHHS, 2001). When it comes to depression, Asian individuals have been found to be at higher risk for the disorder than Caucasian individuals, although at lower risk than African-American or Hispanic individuals (Gary, Brown, Milburn, Ahmed, & Booth, 1989; Mui, 1996; Nguyen & Peterson, 1993). A study by the Center for Disease Control (2005) found hat Asian

Americans had the highest risk for suicide deaths among females, and the second highest risk among males. Similar results have been reported in studies specifically examining the Vietnamese community. In fact, Vietnamese immigrants have been found to report worse health and higher rates of disability compared to other Asian subgroups or Caucasian respondents (Cho & Hummer, 2001; Frisbie, Cho, & Hummer, 2001).

Common Issues. Certain psychological disturbances have consistently been found to affect Vietnamese individuals. Hsu, Davies, and Hanson (2004) determined that the most common diagnoses in Vietnamese adults were depression, adjustment disorders, anxiety disorders, PTSD, and somatization disorders. High rates of depression, anxiety, PTSD, and somatic symptomatology have been found in other studies as well (Caplan, Whitmore, & Choy, 1989; Gong-Guy, 1987; Hauff & Vaglum, 1994; Tung, 1986). An Australian study focusing specifically on post-traumatic stress disorder discovered that PTSD accounted for about half of mental disorders in Vietnamese refugees (Silove, Steel, Bauman, Chey, & McFarlane, 1997).

Service Utilization

Rates of Utilization. Empirical data to date, gives evidence for the underutilization of mental health services by Vietnamese individuals. A large body of research on Asian Americans has supported low rates of mental health service use compared to the general population (e.g. Abe-Kim et al., 2007; Cheung & Snowden, 1990; Kitano, 1982; Kuo, 1984; Li, Hanz, & Browne, 2000; Matsuoka, Breaux, & Ryujin 1997; Sue, 1999; Sue & McKinney, 1975; Sue & Morishima, 1982; US Department of Health and Human Services, 1999; Zhang, Snowden, & Sue, 1998). In fact, it has been found that only 17% of Asian Americans with mental health problems actually seek help for the disturbances (President's Advisory Commission on Asian

Americans and Pacific Islanders, 2003). One relevant self-report study conducted in California revealed some interesting results: Vietnamese adults were more likely than Caucasian adults to report emotional problems, but were 70% less likely to discuss their mental or emotional problems with their medical providers. Also, despite higher need for help with psychological problems, Vietnamese adults were not more likely to seek help from mental health specialists (Sorkin, Tan, Hays, Mangione, & Ngo-Metzer, 2008).

Help-Seeking Behavior. An interesting point to note is that when Asian Americans do seek help, their problems tend to be more severe (Barreto & Segal, 2005; Brown et al., 1973,; Chen et al., 2003; Takeuchi, 1992; Sue, 1977). This means that in Asian populations, only the more disturbed individuals are getting help from formal mental health specialists. This could be explained by the traditional hierarchical system of help-seeking found in Vietnamese culture. With this system, health concerns are usually addressed within the family first, and outside services are only sought when the problem cannot be resolved within the family (Nguyen & Anderson, 2005; Schultz, 1982). If outside help is sought, professional services for psychological problems are considered a last resort (Schultz, 1982). In fact, Vietnamese individuals are more likely to receive mental health treatments from their primary care physicians than mental health specialists (Phan, 2000; Steel et al, 2005).

Influences on Mental Health Utilization

Parental Influences

Multiple studies have confirmed that parental views of mental health have a significant influence on the mental health service use of their children, and that the parent's culture can determine their personal views on mental health. Studies examining ethnic disparities found that

parents' culture affected their beliefs and attitudes towards mental disorders and mental health treatments, and these cultural differences influenced treatment-seeking behavior for their children (Bussing, Schoenberge, & Perwien, 1998; Chandra, Scott, Jaycox, Meredith, Tanielian, & Burnam, 2009; Yeh, Hough, Fakhry, McCabe, Lau, & Garland, 2005). Cooper et al (2002) found that while there were racial differences in beliefs about treatment, these differences did not explain for differences in actual acceptability of treatment for depression. Another study found that while a parent's identification with American culture did not have an effect on mental health service use in their children, their identification with their culture of origin did have a significant impact on rates of service use (Ho, Yeh, McCabe, & Hough, 2007). While these studies all gave evidence for parental influences on their children's help-seeking behavior, the problem is that they all focused on families with children who were under 18 years of age. There is no information on whether children, when old enough to seek their own services, were still influenced by their parent's attitudes towards mental health. That is, do parental attitudes influence mental health treatment in children because they limit the children's ability to actually get help, or is it that their attitudes are actually transferred to their children, which then affect the children's willingness to seek help? This question especially applies to Vietnamese individuals where family plays a significantly greater role compared to most cultures (e.g. Bogman & Edwards; 1984; Matsuoka, 1990; Nguyen, 1990).

Role of Family in Vietnamese Culture. While family is probably important in all cultures, it is especially emphasized in collectivist societies such as Vietnamese and other Asian subgroups. In Vietnamese culture, individualism is discouraged, and group decision-making and obligations are encouraged, especially in terms of the family unit (Gold, 1992). The family is

considered the main social unit, and a strong source of identity for the individual (Hsu, Davies, & Hansen, 2004). There is a strong sense of filial piety - the idea of unquestioning respect for parents and elders (Ho, 1990). Because of this, health concerns are considered a family issue, discussed within, and dealt with by the family (Hickey, 1964; Nguyen & Williams, 1989: U.S. General Accounting office, 1994). Mental illness is seen not only to be a reflection of the individual, but of the family as well. Families who have a member with mental illness could be seen by others as having undesirable traits running within the family (Yamamoto, 1978; Pearson, 1993; Sue & Morishima, 1982). It has also been found that Vietnamese families tend to exert more control over their children than compared to other minorities (Klimidis, Minas, & Alta, 1993) All these are reasons that it can be very difficult for a Vietnamese individual to go against a parent's beliefs, and make it more likely that Vietnamese parents' mental health beliefs have a large impact on a Vietnamese young adult's mental health help-seeking behavior.

Stigma

Stigma is believed to be one of the main reasons that individuals do not seek services for their health problems (US Department of Health and Human Services, 2001). In 1999, the US Surgeon General identified stigma as the most "formidable obstacle" to the spread of mental health services in the U.S. (US Department of Health and Human Services, 1999). Despite this, research on this issue has come up with mixed results. Some studies have found that stigma does, in fact, influence help-seeking behavior (Barney, Griffiths, Jurm, & Christensen, 2006; Mojtabai, Olfson, & Mechanic, 2002; Cooper-Patrik, Powe, Jenckes, Gonzales, Levine, & Ford, 1997; & Schomerus, Matschinger, & Angermeyer, 2009), yet other studies were not able to find a connection (Ng, Jun, Ho, Chua, Fones, & Lim, 2008; Jorm, Medwey, Christensen, Koreten,

Jacomb, & Rodgers, 2000). If stigma had any effect on help-seeking, it is likely to have greater applicability to Asian cultures, where collectivist thinking emphasizes blending in and conforming to societal norms, and looks down upon those who are different. This line of thinking includes the Vietnamese culture.

Stigma Categories. Stigma against mental illness and mental health treatment can be divided into two categories (Link & Phelan, 2005; Neighbors, Bashshur, & Price, 1992; Rusch, Angermeyer, & Corrigan, 2005; Griffiths, Christensen, & Jorm, 2008). Personal, or self, stigma is an individual's personal views about mental illness and mental health treatment. Perceived public, or social, stigma is an individual's view that people with mental illness, or those seeking mental health treatment, are looked down upon by society. Both could influence an individual's willingness to seek help for psychological problems.

Stigma and Family. With Vietnamese individuals, it is important to consider not only how stigma directed at the individual but also stigma directed at the family could affect service utilization. Stigma directed at the family members of mentally ill individuals is called secondary stigma, and has been found to affect use of mental health services (Hong, Anh, & Ogden, 2004). Asian Americans avoid seeking help for their psychological issues from fear of shaming their family (Uba, 1994). Having a mentally ill individual in the family is seen as a reflection of a poor family lineage, and can affect prospects for marriage and future careers (Ng, 1997; Morishima, 1982). In one study by Salter et al (2010), researchers looked at how secondary stigma affected the coping behaviors of Vietnamese males who were diagnosed as HIV positive. Many of the males concealed their condition because they were afraid of the effects on their families, including stigma by others.

Cultural Identification

Culture is believed to have a strong impact on one's views about mental illness and corresponding help-seeking behavior. Therefore one's identification with mainstream culture, has been heavily endorsed as an influential factor in mental health service use. It is believed that higher levels of identification with American culture are correlated with higher rates of psychological service utilization. This could have practical causes, such as higher English proficiency leading to easier access to mental health services (e.g. Neighbors, Bashshur, & Price, 1992; President's Advisory Commission on Asian Americans and Pacific Islanders, 2003; Takeuchi & Uehara), but it could also be due to cultural views affecting likelihood of seeking services.

Vietnamese versus American Views on Mental Health. American culture tends to follow a biopsychosocial approach when it comes to mental health. The idea behind the biopsychosocial is that psychological disorders are a result of a combination biological, psychological, and social factors. Asian cultures, however, do not follow the same model, and differences in views on mental illness could deter Vietnamese individuals from seeking help from mainstream services. Studies on Southeast Asian refugees found that they often use different descriptions from Western cultures when explaining their psychological distress. Southeast Asian refugees describe their problems in more physical terms, such as headaches, trouble sleeping, or feeling tired. Western cultures often use more emotional descriptions, such as feeling sad, or blue (Hsu, Davies, & Hansen, 2004). As far as causal beliefs, one study found that Asian parents were less likely than Caucasian parents to follow the biopsychosocial model when it comes to explaining mental illness, and were more likely to only endorse social factors

(Yeh, Hough, McCabe, Lau, & Garland, 2004). Another study by Fung and Wong (2004) found that Vietnamese women were less likely to endorse stress and Western physiological causes for mental illness compared to other Southeast Asian groups. In general, individuals who are part of American culture view mental illness in a less negative manner than do those from Asian cultures (Shin, 2002). Asian cultures exhibit a high level of stigma against mental illness (e.g. US Department of Health and Human Services, 2001; US Department of Health and Human Services, 1999; Chow, Jaffee, & Snowden, 2003; Herrick & Brown, 1998; Leong, Wagner, & Tata, 1995), and tend to view individuals with mental illness as dangerous (Whaley, 1997).

Cultural Identification and Mental Health Service Utilization. Studies that have examined the relationship between cultural identification and service utilization have been inconsistent. Several studies have shown that higher levels of identification with Western culture were related to higher levels of mental health service utilization (e.g. Kim & Omizo, 2003; Luu & Leung, & Nash, 2009; Tata & Leung, 1994). However, Gim et al (1990) found the opposite. They found that Asian Americans who were less acculturated were more willing to seek psychological services. Nguyen & Anderson (2005) also found that the longer Vietnamese Americans have been in the U.S., the less accepting they are of mental health services. It also seems that adherence with traditional values of a person's original culture can help with adaptation (e.g. Caplan et al, 1992; Gibson, 1989; Gold, 1992; Light, 1972; Min, 1995; Matute-Bianchi, 1986; Portes & Zhou, 1992; Zhou & Bankston, 1994). At the same time, individuals of Vietnamese culture tend to hold rather negative views on mental health, which could mean that higher identification with Vietnamese culture would lead to lower acceptance of mental health services (e.g. Shin, 2002; Whaley, 1997).

Unidimensional Cultural Identity versus Bicultural Identity. A possible explanation for the inconsistent results mentioned above could lie in how cultural identification was conceptualized. Traditionally, cultural identification had been measured as a single dimension. That is, as individuals become more acculturated, they lose their identification with their culture of origin (Chun et. al, 2002; Szapocznik, Kurtines, & Fernandez; 1980). This is based on the idea that one has to shed old cultural patterns in order to adopt new ones (e.g. Warner & Srole, 1945; Gordon, 1964; Gans, 1979; Alba, 1985). More recently, a new, bicultural conceptual of cultural identification has emerged. In the biculturational view, the degree of identification with the new culture is independent of continued identification with the culture of origin (Chung et al, 2002; Ramirez, 1984). In fact, while it was previously believed that higher levels of identification with Western culture led to better adaptation by immigrants, it is now proposed that individuals who identify with both American culture and their culture of origin, are best adapted (Berry, et al., 2006). It would therefore be important to examine identification both with mainstream American culture and the culture of origin in immigrants.

Other Factors

Acceptance of Mental Health Services. An individual's personal acceptance of mental health services could be a factor in his or her help-seeking behavior. It is unlikely that someone would seek out services that they do not find appropriate for their problem. As far as Vietnamese young adult's views on mental health treatment, it has been found that Asian college students have lower acceptance levels of mental health treatment than their Caucasian counterparts (Brinson & Kottler, 1995). Most would rather turn to friends, family, or religion for help than to seek help from mental health professionals (Lee, Juon, Martinez et al, 2009).

Distress Level. While it has been shown that greater distress is related to better views of help-seeking (Tracey, Leong, & Glidden, 1986), other studies have found that there is no relationship between distress and help-seeking in Asian individuals (Ying & Miller, 1992; Yoo, Goh, & Yoon, 2005). Brief measures of psychological distress include the Hopkins Symptom Checklist10-item version (HSCL-10; Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974), the Hopkins Symptom Checklist 5-item version (HSCL-5; Derogatis et al, 1974), and the Mental Health Inventory (MHI-5; Berwick et al, 1991).

Cultural Identity Measures

Two scales, which were developed specifically for Asian populations are the Suinn-lew Asian Self-Identity Acculturation Scale (SL-ASIA; Suinn, Rickard-Figueroa, Lew, & Vigil, 1987) and the Asian American Multidimensional Acculturation Scale (AAMAS; Chung, Kim, & Abreu, 2004). These scales examine cultural identification using a unicultural approach, where higher acculturation meant lower identity with culture of origin. A scale that examines cultural identification using a bicultural method would be the Vancouver Index of Acculturation (VIA; Ryder, Alden, & Paulhus, 2000). This scale includes 20 items, which examines identification to American culture and identification to culture of origin separately. Unfortunately, in a study measuring a larger number of variables, one cannot include a lengthy cultural identification scale, or risk participants losing interest half-way. As far as the researchers know, no brief cultural identification scale currently exists which takes a bicultural approach to assessing cultural identification.

Current Study

The first aim of the study is to develop and test a brief scale measuring cultural identification, which is based on the bicultural approach to cultural identity. Secondly, and most importantly, researchers hope examine a number of factors and their relationships to help-seeking behavior in Vietnamese young adults who are old enough to seek their own psychological services. The factors to be examined include the individual's distress level, stigma beliefs, perceived parental acceptance of mental health services, personal acceptance of mental health services, and cultural identification. Lastly, the researchers want to determine the role of personal acceptance of mental health services as a mediator between all other factors being looked at in the study and mental health service utilization. That is, do these factors also influence acceptance, which in turn, influences help-seeking?

Hypotheses. Hypotheses are as follows: (1) Items assessing language, social relationships, dating preferences, medical provider preferences, food, and observance of traditions will have acceptable internal consistency for items related to each culture. The total score for each set of questions will correlate with the item "I identify with Vietnamese (or American) culture." (2) Higher acceptance of mental health services, higher levels of distress, higher perceived parental acceptance, stronger perceived stigma against mental health services, stronger identification with American culture, and lower identification with Vietnamese culture will all be correlated with higher formal mental health service utilization. In multivariate analyses excluding participant acceptance of mental health services, all variables will predict unique variance in service utilization. (3) Higher levels of distress, higher parental acceptance of such services, stronger beliefs that mental health will reflect on family, stronger identification

with American culture, and lower identification with Vietnamese culture will all be correlated with higher acceptance of formal mental health treatment in Vietnamese college students. In multivariate analyses, all variables will predict unique variance in acceptance of mental health services. (4) The relationship between predictors and higher level of mental health services utilization will be mediated by acceptance of mental health services.

CHAPTER THREE

Methodology

Participants

Recruitment

Participants were recruited from two main sites, with additional participants recruited through a method called the "snowball effect." Recruitment sites were selected based on connections one of the researchers had with both sites. Participation in the study was on a volunteer basis, with no direct benefits for those who participated. However, those who participated in the study were given the option of entering in a raffle for a $50 Starbucks gift card.

Texas Exes Asian Alumni Network. The Texas Exes Asian Alumni Network (TEAAN) is an organization consisting of Asian-American alumni from the University of Texas at Austin. Although all members were former students at the UT Austin, TEAAN is a separate non-profit organization, and is not considered a part of the university.

Mother of Perpetual Faith Youth Group. The Mother of Perpetual Faith is a local Vietnamese church located in the city of Garland, Texas. Garland is a small town within Dallas County and contains a large proportion of the Vietnamese population of Dallas. Although not all members of the youth group were over 18 years of age, there were a large number of members who are of legal age.

Snowball Effect. Along with recruitment from the above-mentioned sites, researchers spread the survey to individuals they knew who met the requirements for the study. Participants

who completed the survey were also encouraged to pass along the survey link to any friends, family, or acquaintances they knew who would be eligible for the study.

Eligibility Requirements. To be eligible to participate in the study, participants had to be of Vietnamese descent and between the ages of 18 to 30 years old. These criteria were set to ensure that participants were old enough to be able to legally seek their own services, while still young enough to be considered a young adult. Since the survey instrument was written in English, participants were required to have a relatively good grasp of the English language in order to complete the study.

Sample Size Considerations. An estimation of the priori required sample size was done using the G*Power 3.1.2 application. For doing a two-variable correlation in a bivariate normal model, a sample size of at least 67 respondents would be necessary to achieve a power of 0.80. Researchers were aiming to recruit at least 150 participants for the study. At the end of the study, a total of 87 participants filled out the survey. However, three participants only gave a minimal number of responses on the survey; therefore, their data was not included in the final results, bringing the total number down to 84 participants. Researchers were able to obtain the minimum sample size needed to obtain adequate power for the study, but were unable to meet the set goal of 150 participants.

Participant Characteristics

There were about equal number of male and female participants. The majority of participants were born in the United States. Most attended college as their highest level of education, had access to some form of health insurance, and were referred to the survey by a friend or acquaintance. Despite a larger number of participants being born within the United

States, participants endorsed slightly higher identification with Vietnamese culture than with American culture, although this difference was not at a significant level. Table 1 gives a summary of participants' demographic characteristics.

Measures

The majority of the survey contained items that were originally developed by the researchers. These items were simple questions designed to assess distress, stigma beliefs, perceived parental acceptance of mental health treatment, acceptance of mental health treatment, and actual mental health service use. Measures, which have already been developed and tested, were also used in the study.

Demographics

Demographic data requested have been summarized in Table 1.

Distress Ratings

Two different distress ratings were included in the survey. The item "Rate your distress level within the last week" was used to assess participants' subjective levels of emotional distress, while the item "How do you think your parents would rate your distress level within the last week?" was used to assess participants' perceived parental ratings of their emotional distress. Both items used a 0 to 9 scale, with higher numbers indicating higher levels of distress. Along with the subjective rating of personal distress, the Hopkins Symptoms Checklist – 10 item version (HSCL-10) was also included to obtain a more systematic rating of participants' distress.

Hopkins Symptom Checklist – 10 (HSCL-10)

In order to get an idea of the individual's current level of distress, the Hopkins Symptom Checklist – 10 item version (HSCL-10) was included in the survey. The HSCL-10 is a widely used, 10 item, self-report survey which was adapted from the original 58-item version of the HSCL (Derogatis et al, 1974). The HSCL-10 is meant to detect psychiatric disturbance in individuals, and looks specifically at depression and anxiety, which are the most common symptoms of psychological disturbance. HSCL-10 has been shown to have a high reliability level (Cronbach **α**: .87), and have high correlations with other instruments (Lien, Green, Thoreson, & Bjertness, 2011; Lipman, Covi, & Shapiro, 1979; Sandanger, Moum, Ingerbrigsten, Sorensen, Dalgard, & Bruusgard, 1999; Strand, Dalgard, Tambs, & Rognerud, 2003). Since it has been shown that Asian Americans have a higher tendency to somaticize their psychological distress, researchers have decided to include some additional items on the checklist – to better detect for any emotional distress (Hsu, Davies, & Hansen, 2004). The items "Headaches" and "Feeling tired" were added on, in addition to the original 10 items.

Perceived Parental Awareness of Distress

Although not to be considered in relation to mental health service utilization, researchers included the question "How do you think your parents would rate your current distress level?" as a way to measure perceptions of parental awareness of the respondents' problems. Respondents rated this item on a scale of 0 to 9, with higher numbers representing higher perceived distress by parents. The responses to this question will be compared to the question on participants' actual distress level to see how accurate Vietnamese young adults believe their parents are in estimating their emotional distress.

Communication with Parents

One item on the survey assesses the level of communication between parents and young adults on their emotional problems: "How often do you talk about your problems with your parents?" Parental communication will also not be considered in relationship to mental health service utilization. The purpose of this question is to see whether higher levels of communication with parents are related to better perceived parental awareness of participants' distress. This relationship will be explored as a secondary analysis and is not core to the study.

Stigma

Four items on the survey were included to assess individuals' perceptions of stigma against mental health services – two designed to assess public stigma, two designed to assess personal stigma. All four items ask participants to rate how much they agree with a certain statement. The items assessing public stigma include "If people find out you were getting help for your problems, they would not want to associate with you" and "Most people look down on families that have a member who is mentally ill living with them." The question focusing on families is designed to not only assess perceptions of public stigma, but perceptions of secondary stigma as well. The two items assessing self stigma are: "Seeking help for problems is a sign of mental illness" and "Seeking help for problems indicates you have failed." The item assessing secondary stigma was obtained from the Devaluation of Consumers Families Scale (Struening et al., 2001). Aromaa, Tolvanen, Tuulari developed the other three items, and Wahlbeck (2011) in a study based on depression. Wording of these items were altered in the current study in order to assess stigma related to mental health service utilization rather than stigma related to depression.

Personal and Perceived Parental Acceptance

Acceptance of mental health services was assessed using the question "At what level of emotional distress would you seek help from the following?", and perceived parental acceptance of mental health services was assessed using the question "How severe would your parents have to perceive your emotional distress level to be before suggesting help from the following?" Only the items "Psychologist/Counselor" and "Psychiatrist" were considered to be formal mental health services. Other items included, which will considered as non-formal services consist of "School counselor", "Family Doctor", "Herbal treatments", "Medication for psychological difficulties", "Family", "Religious leader or counselor", "Friends", and "Other." It was assumed that the less distress participants indicated as necessary before seeking help from a service, the higher their acceptance of that service.

Service Utilization

Two questions on the survey were designed to look at mental health service utilization. The question "Within the last year, which of the following have you sought help from for emotional issues?" was used to determine whether services have been sought, and the question "If services were sought, how many sessions were attended?" was used to give a measure to amount of service utilization. For these questions, only the items of "Psychologist, Ph.D.," "Counselor, LPC", "Counselor, LMFT", "Counselor, unknown," and "Psychiatrist, M.D." were considered to be formal mental health services. Other options included "School Counselor", "Religious counselor or leader," "Physician," "Herbal treatments," "Medicine," "Family or Friends," and "Other." More sessions reported with a service indicated higher utilization rates for that service.

Brief Measure of Cultural Identity

Data on the brief cultural identity scale is provided under Aim 1 of the Results section.

Data Collection

Participants completed the survey through the online website Survey Monkey. Access to the survey via a link that was distributed through three methods: the link was posted on the Texas Exes Asian Alumni Network's official website and Facebook page every two weeks; a mass e-mail was distributed to all members of the Mother of Perpetual Faith's youth group; and the link was also distributed through word-of-mouth by the researchers and participants who had already completed the survey. The survey remained open to participants for a period of almost two months (April 02, 2012 through May 29, 2012).

Consent. Because the study was completely anonymous, did not involve underage individuals, or pose more than minimal risk to participants, written consent was not obtained from participants. Consent was be implied by completion of the survey. However, individuals were still provided details on the general aims of the study, estimated duration of the survey, and potential risks and benefits of the study before they began the survey.

Data Analyses

Main Analyses

All relationships were initially examined using simple correlational analysis of the data. More specifically, researchers determined Pearson's r values for relationships between mental health service utilization and: acceptance of mental health services, perceived parental acceptance of mental health services, perceptions of public stigma, perceptions of self stigma, HSCL-10 scores, identification with American culture, and identification with Vietnamese

culture. Mediation was tested using Baron and Kenny's (1986) models. Participant's acceptance of mental health services was examined as the potential mediator. All other predictors to utilization of services were tested in linear regression analyses, one at a time, with acceptance also included as an independent variable. Our statistical requirement for mediation was that if mediation is present, acceptance will contribute significant variance to utilization of services, but the predictor will not.

Testing of the Brief Cultural Identity Scale

To test the psychometric properties of the brief scale of cultural identification, an exploratory factor analysis was conducted. It was hypothesized that all items would load on a single factor, and loadings will be at least .40. To obtain evidence for validity, the correlation of the total score of the scale with the statement **"I identify with Vietnamese (or American) culture."** was examined.

CHAPTER FOUR

Results

Descriptive Statistics

Distress

Both overall personal ratings of distress, N = 77; M = 3.52; SD = 2.30, and HSCL scores, N = 77; M = 1.85; SD = .63, were found to be slightly lower than the half-way point.

Perceived Parental Awareness of Distress

Perceived parental ratings of distress had an average rating of 2.73 (N = 77; SD – 2.25). Based on a paired t-test analysis, $t(76) = -4.20$, $p < .0005$, perceived parental ratings of was found to be significantly lower than participants' personal ratings of distress.

Communication with Parents

The majority of respondents (51.9%) reported *rarely* talking to their parents about their emotional problems. The second most endorsed frequency of communication with parents was *sometimes* (31.2%). Out of all the participants, 11 (14.3%) reported *never* talking to their parents about such problems, and only 2 (2.6%) reported *frequently* talking to their parents.

Stigma

Respondents of the study endorsed an overall stigma level that was lower than the half-way point, N = 79; M = 1.86; SD = .65. Participants were found have a higher level of perceived public stigma towards mental health services, N = 79; M = 2.11; SD = .79, than compared to personal stigma against these services, N = 79; M = 1.61; SD = .77. The difference between public stigma and personal stigma was found to be significant based on a paired t-test analysis, $t(78) = 5.08$, $p < .0005$.

Personal and Parental Acceptance of Services

Table 2 gives a summary of personal and parental acceptance levels for each service assessed in the study. Table 3 lists correlations between the items assessing for personal acceptance of services. Table 4 contains correlations between items assessing for parental acceptance of services. Table 5 provides correlations between personal and parental acceptance of the different services assessed for in the study.

Overall personal acceptance of mental health services was found to be slightly lower than the half-way point – with acceptance of psychologists and counselors being higher than acceptance of psychiatrists. Overall perceived parental acceptance was even lower. Friends and family had the highest means for both personal and parental acceptance of services. However, participants showed more personal acceptance towards toward seeking help from friends than from family, while parents were perceived to prefer seeking help from family over friends.

Strong positive correlations were found between both personal and parental acceptance levels of psychologists and psychiatrists, which supports the combination of the two services into the category of formal mental health services. Medication was also found to strongly correlate with the items in formal mental health services, but was not included as a formal mental health service. A strong positive correlation was also found between parental acceptance of friends and family, which supports the hierarchical system of help-system found in collectivist societies. Ho

Service Utilization

Table 6 provides descriptive data on rates of service utilization by participants. Congruent with acceptance levels, family and friends were, by far, the most utilized by participants when dealing with emotional distress.

Aim 1: Cultural Identity Scales

Newly Developed Cultural Identity Scale

The cultural identity scale developed for the study assesses for cultural identification based on six different domains: language proficiency, social network, food preferences, and adherence to traditions, relationship preferences, and medical provider preferences. Language proficiency has been found to be a major component in most scales of cultural identity (Anderson, Moeschberger, Chen, Kunn, Wewers, & Guthrie, 1993), and a reliable predictor of cultural identification (Olmedo & Padilla, 1987). The first five domains are found in commonly used cultural identity scales among Asian Americans, such as the Suinn-lew Asian Self-Identity Acculturation Scale (SL-ASIA; Suinn, Rickard-Figueroa, Lew, & Vigil, 1987), Asian American Multidimensional Acculturation Scale (AAMAS; Chung, Kim, & Abreu, 2004), and the Vancouver Index of Acculturation (VIA; Ryder, Alden, & Paulhus, 2000). An item assessing medical provider preferences was also included, since the researchers felt this was an important factor to look at with regards to service utilization. Refer to Table 7 for the specific items used in the cultural identity scales.

Scales' Descriptives

Table 7 presents the means and standard deviations for each item on the Vietnamese and American cultural identity scales. According to the scale scores, participants endorsed higher

levels of American cultural identity than Vietnamese, $t(82) = 3.65$, $p < .0005$. According to personal ratings, participants had slightly higher identification with Vietnamese culture than with American culture. However, the difference in personal ratings of cultural identification was not at a significant level $t(82) = .26$, $p < 1.0$.

Inter-Item Correlations

Correlations between individual items of the cultural identity scales are listed below. Table 8 contains correlations of items within the Vietnamese scale. Table 9 shows item correlations within the American scale. Table 10 lists correlations between items of the Vietnamese and American identity scales.

Factor Analyses

In order to ensure that all items included on the cultural identity scales represented a single, coherent scale, the researchers performed two separate factor analyses for the Vietnamese and American scales, using a one-factor model for each scale. For the items included in the scales, refer to Table 7. The results of the original factor analyses are shown on Table 11.

The resulting one-factor solutions explained a total of 36.41% of the variance on the Vietnamese scale and 34.91% of the variance on the American scale. For both scales, all items were found to load onto the scale at levels of above .40, except for the items assessing for medical provider preferences. As a result, the items assessing for medical provider preferences were removed from both scales, and another set of factor analyses were conducted using the remaining five items. The results of the factor analyses after the item *I would feel comfortable seeking services from a medical provider who is Vietnamese/American* was removed is shown on Table 12.

Forcing a single factor with only the five remaining items, all items were found to load onto the resulting factor at a level above .40 for both scales, indicating that the resulting scales had a coherent structure. As a result, medical provider preference was removed from the final scales, and only the items assessing for language proficiency, social network, relationship preferences, food preferences, and adherence to cultural traditions were used.

Reliability Analyses

The internal consistencies of both the Vietnamese and American scales were examined by performing reliability analyses on both instruments after the items assessing for medical provider preferences were removed. The reliability analyses indicated a Cronbach's alpha coefficient of .64 for the Vietnamese scale and a Cronbach's alpha coefficient of .62 for the American scale. The Cronbach's alpha levels for both scales were found to be slightly below the ideal value of .70. However, the values were close enough for the researchers to decide to continue using as the main measure cultural identification within the study. Researchers wanted to test for the possibility of the scales being better explained by more than one factor, which may have pulled down the reliability of the scale. Factor analyses were done on both scales, which did not force a specific number of factors for the scales. The results of the analyses showed that both scales were best explained using only one factor, with loadings identical to the results shown above.

Correlational Analyses

In order to validate the cultural identity scales, the relationship between scores on the scales and their respective validating item (*I identify with Vietnamese culture* and *I identify with American culture)* was examined. Scores on the five items of each scale were averaged to get a

single representative score of cultural identity. A correlational analyses was then run between these averaged scores and their respective validating items. A strong positive correlation was found between the Vietnamese cultural identity scale and the item *I identify with Vietnamese culture* [$r = .56$, $n = 83$, $p < .0005$]. A strong positive correlation was also found between the American cultural identity scale and the item *I identify with American culture* [$r = .57$, $n = 83$, $p < .0005$]. These findings contribute to the validity of the scales as measures of an individual's cultural identification. Researchers also examined the relationship between both scales to each other. The results of the analysis found no significant correlation between the two scales, suggesting that identification to each culture is independent of each other [$r = .16$, $n = 83$, $p > .10$].

Aim 2: Predictors of Mental Health Service Use

Since a very small number of participants were found to actually utilize any form of formal mental health services ($n = 7$), researchers did not have an adequate sample to assess the correlation between mental health service utilization rates and the proposed predicting factors of personal acceptance of mental health services, perceived parental acceptance of mental health services, perceptions of public stigma, perceptions of self stigma, HSCL-10 scores, identification with American culture, and identification with Vietnamese culture. Exploratory analyses were conducted to examine differences in characteristics between two groups based on whether they endorsed utilization of any formal mental health services.

Comparing Demographic Variables

T-tests were conducted to examine for possible differences between the two groups on the demographic variables of age and age to the United States for those who were not born here.

For categorical variables, such as gender, education, place of birth, insurance access, and referral source, chi-square analyses were performed in order to see whether the distribution of scores for those variables differed between the groups. Table 13 shows the means, and standard deviations, and frequencies for demographic variables between utilizers and non-utilizers of formal mental health services. Based on the T-tests and chi-squares analyses, utilizers and non-utilizers did not significantly differ on any of the demographic variables.

Logistic Regression

Researchers then wanted to assess whether the proposed factors of perceived personal distress, personal acceptance of mental health service, parental acceptance of mental health services, stigma perceptions, Vietnamese cultural identification, and American cultural identification could serve as predictors of whether an individual would be a utilizer of formal mental health services or not. A logistic regression analysis was separately performed between each of the proposed factors and the categorical variable of service utilization. The results of the logistic regressions are presented in Table 14.

None of the proposed predicting variables were found to be possible predictors of formal mental health service utilization at a significance level of $p < .05$. However, participants' scores on both personal distress ratings and the HSCL measure of distress were found to be significant at a trend level ($p < .10$).

Aim 3: Personal Acceptance As a Mediator

Prior to testing for mediation between acceptance and utilization of formal mental health services, researchers examined whether the criteria for mediation presented by Baron and Kenny

(1986) were met. Since no relationship was found between personal acceptance and utilization of formal mental health services, it was concluded that there was no potential for mediation.

Predictors of Acceptance

Although personal acceptance of mental health services was not found to be a mediator between formal mental health service utilization and its predictor variables, acceptance of mental health services, in itself, is still an important outcome to study. Therefore, the researchers went ahead and performed a series of linear regression analyses to examine whether any of the proposed factors could play a role as predicting variables for an individual's acceptance of formal mental health services. Each variable was examined separately in a linear regression analyses with the variable of personal acceptance. The results of the linear regression analyses are presented in Table 15. Of all the proposed predictors, only parental acceptance of formal mental health services was found to be a predictor of personal acceptance of formal mental health services. Education was found to correlate at a trend level with personal acceptance of services.

Additional Analyses

Personal and Parental Ratings of Distress

In addition to the main analyses, researchers wanted to compare parental ratings of distress to personal ratings of distress to assess how aware participants believe their parents are of their children's distress level. A linear correlation analyses was run between the variables of personal ratings of distress and perceived parental ratings of distress. The results showed significant strong positive relationship existed between the two variables [$r = .73$, $n = 77$, $p<.0005$]. This indicates that participants generally perceived their parents to assess their own

and their parents' awareness of their emotional distress levels as being very similar. Only one respondent endorsed the highest score for personal distress (9), and this respondent believed that his or her parents would also give a rating of 9 for his or her distress level. Two individuals reported distress ratings of 8. They perceived their parents to give distress ratings of 5 and six, which is lower than their personal rating but still above the half-way point of the scale. Four respondents reported experiencing no distress within the last week (0). Out of these four participants, three believed their parents would also give them a distress rating of 0, and one believed his or her parents would give a rating of 1.

Communication and Parental Ratings of Distress

Researchers were also interested in examining whether frequency of communication impacted how accurately participants believed their parents were able to perceive their emotional distress. A correlational analysis revealed that communication with parents and personal ratings of distress had a slightly negative relationship, although the correlation was not significant [$r = -.08$, $n = 77$, $p > .10$]. This suggests that individuals with higher levels of distress do not necessarily talk to their parents more or less frequently than individuals with lower distress levels. A multiple regression analysis was performed with personal distress ratings as the dependent variable and parental communication, perceived parental ratings of distress, and the interaction between the two variables as the independent variables. Together, the independent variables explained 53.9% of the variance in personal ratings of distress. Of the three variables, parental ratings of distress made the largest unique contribution to the model (beta = .74, $p < .0005$), while parental communication did not make a statistically significant contribution (beta = -.19, $p > .10$). The interaction between parental ratings and levels of parental communication

also was not found to make a significant contribution to personal ratings of distress (beta = .68, p >.10). This indicates that frequency of communication between participants and their parents did not make a difference in how accurate parents were perceived to be in their awareness of their children's distress levels.

The results that communication levels with parents did not have an effect on perceived awareness of the child's distress was not expected by the researchers. This raised the question of whether communication with parents about problems might differ as a result of identification with American and Vietnamese culture. To answer this question, correlational analyses were done between scores on both of the cultural identity scales and levels of parental communication. Based on the results, higher or lower scores on the American scale did not correlate with higher levels of parental communication [r = -.11, n = 77, p > .10], nor did higher or lower scores on the Vietnamese scale [r = -.10, n =77, p >.10]. Therefore, cultural identification did not impact how much participants talked to their parents about their problems.

Social Relationships and Distress

Since most of the participants in the study were of college age, researchers realized that the majority of respondents may be living away from their families. This would make it easier for them to turn to their friends for help, rather than family, when experiencing emotional distress. Because of this, researchers wanted to examine whether young adults who were more comfortable with their peers (American or Vietnamese), and therefore, more likely to talk to their peers about their problems, experienced less personal distress. Correlational analyses were run between personal distress ratings and the items "I interact well with people my age who are Vietnamese/American." The results indicated that neither level of interaction with Vietnamese

peers (beta = .02, p >.10), or American peers (beta = -.02, p >.10), were significant predictors of the individual's distress level.

Medication as a Formal Mental Health Service

Since medication for psychological difficulties can be obtained from professionals who do not specialize in mental health services (e.g. physicians, family doctors), it was not considered as a formal mental health service in the study. However, using psychotropic medication does indicate that the individual is receiving treatment for their psychological difficulties from a professional. Therefore, researchers did some exploratory analyses to examine whether prediction of formal mental health service use would change if individuals who utilized medication were also counted as formal utilizers. With the addition of medication as a formal mental health service, the number of formal utilizers increased to 12 participants. Of the seven respondents who indicated using medication for emotional difficulties, only one also indicated getting treatment from a psychologist. After running a logistic regression analyses, the predictor variables of personal distress level, personal acceptance of formal mental health services, perceived parental acceptance of formal mental health services, stigma perceptions, Vietnamese cultural identification, and American cultural identification were still found to not serve as significant predictors of utilization, and HSCL score was no longer found to be related to utilization at a trending level.

Summary of Findings

The results of the study did not fully support any of the original hypotheses proposed by the researchers. Although the scales showed some evidence for validity, their internal consistency was found to be slightly lower than acceptable. Further development of the scales

will be necessary before using them as measures of cultural identity. Out of the factors proposed to be predictors of mental health service use, only distress level correlated with service use. However, this correlation was at a trend level, and did not meet a significance level of $p < .05$ generally accepted by the research. Since personal acceptance of formal mental health services did not significantly correlate with service use, it was concluded that it could not act as a mediator between service utilization and the other variables of distress level, stigma perceptions, perceived parental acceptance, and cultural identification. Looking at predictors of personal acceptance of services, only perceived parental acceptance was found to be a significant predictor.

In additional analyses, a strong positive correlation was found between perceived parental ratings of the respondents' distress and personal ratings of distress, indicating that the participants believe their parents to have a pretty accurate understanding of the participants' distress levels. In a multiple regression analyses, frequency of communication with parents did not seem to add to the prediction of personal distress levels over parental ratings of distress. This suggests that frequency of communication with parents does not impact how understanding parents are perceived to be of their child's distress level.

Researchers also wanted to explore whether including medication as a formal mental health service would impact prediction of formal mental health service use. Even with medication included as a formal mental health service, the proposed factors of distress level, stigma perceptions, perceived parental acceptance of mental health services, personal acceptance, and cultural identification still did not significantly predict service use.

CHAPTER FIVE

Discussion

Study Implications

Descriptives

There were some important findings to note based on the descriptive analyses of participant responses. While most participants reported being born in America, there was an overall stronger identification with Vietnamese culture compared to American culture. This shows that the Vietnamese cultures' influence remains strong in this population, even throughout generations.

Participants were also found to have low overall acceptance of mental health services, which is consistent with past studies that have shown more negative attitudes toward mental health within this population. However, questions concerning stigma indicated that respondents did not have high overall stigma towards these services. Consistent with the fact that stigma did not turn out to be a predictor of personal acceptance or utilization of formal mental health services, the results of our study would not support the theory that stigma is a main factor in the low levels of service utilization found in this study. Comparisons between the different types of stigmas did reveal that participants had higher levels perceived public stigma than personal stigma against mental health services. This indicates a discrepancy between how the young adults surveyed in our study view mental health and how they believe other individuals view mental health. However, while young adults may indicate less personal stigma against mental illness, an external orientation is often found in collectivist societies. Individuals within this

population tend to conform to the values of the society, and, therefore, will not likely seek services that they feel are not accepted by others.

In congruence with the hierarchical system of help-seeking found in many collectivist societies, respondents did show a preference in seeking help from family and friends for their emotional distress over any type of formal services. This preference seemed to translate to higher utilization rates of friends and family compared to any other service. Although in contrast to the model, there was a higher preference for seeking help from friends compared to family members. There could be many reasons for this, such as a generational gap causing young adults to feel that their same age peers would be more understanding of their problems than their parents. It could also be due the fact that most of the respondents were in college or beyond. The experience of living on your own in college may have made it easier for respondents to seek help from friends and peers who were readily available, compared to family members who were in another city. Respondents also showed higher personal acceptance towards seeking help from physicians than from formal mental health services. This same trend was found in perceived parental acceptance of services. This could be due the to fact that Asian cultures have higher acceptance of physical conditions rather than psychological ones, and therefore have a tendency to somaticize their emotional distress (Chang, 2003; Hsu, Davies, & Hansen, 2004; Kirmayer, Dao, & Smith, 1998).

Aim 1

Since participants' scores between the two scales were found to be uncorrelated, we can conclude that their identification to Vietnamese culture was independent of their identification to American culture. This provides further support that cultural identity should be examined using

a bicultural, rather than unicultural, view. Analyses of both the Vietnamese and American versions of the cultural identity scale found the scales to be valid measures of cultural identification. The internal reliability of the scales were found to approach, but not reach, the accepted value of .70 for internal reliability. To increase the reliability of the scale, researchers in the future may want to test the addition of items into the scale that may better tie together the variables measuring the construct of cultural identity. There is also the possibility that the relatively homogeneous characteristic of the participants (high education, born in America, age range, etc.) limited the reliability of the scales. Future studies on the scale may also want to ensure good variability in participant characteristics. From this study, the scales have only been measured for their internal reliability. It is recommended that other aspects of the scales also be examined– such as their test-retest reliability. For now, the scales can be used to serve as a basis for further development of a short, bicultural measure of cultural identity.

Aim 2

Study results did not support hypothesis b, indicating that the distress level, stigma beliefs, perceived parental acceptance of mental health services, personal acceptance of mental health services, and cultural identification all do not serve to predict use of formal mental health service utilization. Utilization of formal mental health services was found to be related to higher scores on both personal ratings and the HSCL measure of distress. However, these relationships were found to only be at trend level, and not significant. It should be noted that neither personal or parental acceptance of mental health services were found to be related to formal mental health service utilization, suggesting that distress level is the main factor in whether Vietnamese young adults seek help. If this is, in fact the case, then it may be that the low rates of mental health

service utilization found in this population are due to low levels of actual psychological distress rather than lower willingness to seek services. It could also be that Vietnamese American young adults have lower recognition of their distress, and in turn provided lower ratings for their distress. However, this is a question that cannot be answered with our study since our study utilized a modified version of the HSCL-10 without providing a comparison group to compare distress ratings between Vietnamese Americans and their American counterparts.

Aim 3

No relationship was found between personal acceptance and formal mental health services, indicating personal acceptance does not act as a mediator between service utilization and any of the other factors of distress level, stigma beliefs, perceived parental acceptance of mental health services, and cultural identification. Therefore, hypothesis d was found to be unsupported by the study results. However, looking at the factors that predict personal acceptance of formal mental health services, researchers found a strong relationship between parental acceptance and personal acceptance of such services. This indicates that even when Vietnamese young adults are old enough to seek their own help for psychological difficulties, their acceptance of such services are still influenced by how much they perceive their parents to accept these services. This matches with the collectivist nature of Vietnamese-American cultures – where decisions are often made as a family.

Communication and Distress

The results of the study suggested that participants generally found their parents to have a good awareness of their distress level, but frequency of communication with parents did not have an impact on how aware parents were perceived to be of the participants' distress. An important

factor to consider is that distress levels in the study were relatively low. The low variability in levels of distress could have limited the ability to find a significant difference between the communication and cultural identity. However, another possibility for these results is that talking to parents about your problems is more of a custom in American culture than in Vietnamese, and that parents and children in Vietnamese culture communicate their distress in ways other than directly talking about it. However, further analyses revealed that there was no relationship between level of parental communication and identification with either American or Vietnamese culture, indicating that participants' cultural identity did not influence how likely they were to talk to their parents about their problems. These results do not necessarily indicate that culture has no role in the relationship between communication and parental awareness of distress. It is possible that it is the parents' cultural identity that determines amount of communication between the parent and child. It is also possible that many participants were not able to communicate with parents on a regular occasion due to living away from home.

The study also found that how well participants interacted with their same-age peers did not have an impact on how distressed they were. As with the relationship between parental communication and distress, it is important to consider that the low variability in distress levels endorsed by participants may have limited the ability to find any relationship between peer interaction and distress. Further research should be conducted which examines the relationship between these two factors.

Clinical Implications

Despite studies having shown high levels of distress within this population, and despite this study's findings that distress is the most influential factor in rates of service use, it has been

shown that Vietnamese Americans underutilize mental health services. This indicates that there are other factors that are acting as barriers to service utilization within this population. As mentioned above, it is possible that one barrier is low recognition. If this is the case, it is important for other professionals in the health care field to screen for signs and symptoms of psychological disturbance within this population. As noted, Vietnamese Americans have a tendency to somaticize, and refer to their physicians before referring to mental health professionals for psychological distress. Primary care physicians should therefore be trained to evaluate their Vietnamese American clients they have for possible symptoms of a psychological condition – especially more physical symptoms such as headaches, fatigue, and dizziness. The study also found a strong correlation between perceived parental levels of acceptance and personal levels of acceptance towards mental health services. This supports the importance of family and the family unit while dealing with collectivist cultures such as the Vietnamese culture. Attempts to spread awareness of mental illness and mental health services to this population should target the family as a whole, rather than take an individual approach. It is important to focus on the effects that a mental illness can have on the whole family and how the family unit can play a role supporting treatment. It is also important to ensure that both parents and their children have an equal understanding of mental illness and are able to discuss any differences in how they view such conditions. With mental health treatment, mental health professionals should work to include the whole family and have a good understanding of the family dynamics and roles within the typical Vietnamese-American family.

Limitations

Sample

Overall Sample Size. Due to time constraints, researchers were only able to collect data from 87 participants before the end of the study. The small sample size, and the fact that it consisted of well –educated and high functioning individuals is a major limitation to the study, and may have limited the researchers' abilities to find significant differences and relationships between variables. Results from the study should, therefore, be interpreted with caution, and the conclusions should not be generalized to the population of Vietnamese young adults as a whole.

Uneven Samples. Also in the study, the number of utilizers of formal mental health services compared to non-utilizers was greatly uneven. With only seven utilizers of formal mental health services, the statistical power of many analyses run in the study was greatly limited, and the study could not be said to have good representation of the population of Vietnamese young adults who utilize formal mental health services. Mental health services are already known to be underutilized in the Vietnamese population, and a sample of only 87 participants could not be expected to include many individuals who actually sought services. A much larger overall sample would have been necessary in order to obtain a large enough number of participants who utilized formal mental health services. In the study, none of the variables examined were shown to be possible predictors of formal mental health service utilization. However, it is possible that with a larger sample size, significant correlations might have been found between service use and the provided variables.

Survey Items

Inconsistency in Survey Items. Survey items were found to have inconsistencies in the time-frame of various questions. On both the HSCL-10 scale and the item assessing for subjective ratings of distress participants were asked to rate their distress within the last week. However, help-seeking behavior was assessed for within the last year. The time-frame allowed for help-seeking was much wider than the time-frame for distress. It is possible that participants had higher levels of distress in the past, sought services, and now have lower levels of distress. It is possible that individuals had higher levels of distress in the past, but did not seek services, but their distress went away. Therefore, researchers cannot say that the relationship between distress level and help-seeking at time of service utilization was directly examined. Also, the survey asked respondents about their current access to insurance, whereas help-seeking was assessed for the last year. While researchers determined participants' current insurance status, they did not have the data to ascertain whether they had access to insurance during the time of service utilization.

Another inconsistency exists between items that ask for the participants' subjective ratings of distress and the HSCL-10 measure of distress. The HSCL-10 measure asked participants to give symptoms experienced within the last week, *including today.* The item asking for participants' subjective ratings of distress asked participants to give symptoms experienced within the last week, but 'including today' was not included in the time-frame given by the question.

Vagueness in Survey Items. With regards to the cultural identity scales, it was brought to the attention of the researchers that the term 'American' was too vague. One participant

contacted the researchers to let them know that they were unsure to refer to 'Americans' as all other ethnicities living in America, or only Caucasian counterparts. Therefore, researchers can not ensure that all participants were referring to the same concept of 'American' while filling out survey items.

Indirect Measures

In the study, the parents of the Vietnamese young adults were not directly assessed on items asking for their acceptance of various services and ratings of distress for their children. This was instead, done indirectly by assessing how respondents perceived their parents would answer such items. The researchers believed that respondents' perceptions of parental acceptance would be a more important determinant factor in their own acceptance and utilization of services than actual parental acceptance levels. Just because a parent has high acceptance of mental health services does not mean this attitude is communicated to their children. The child may still believe the parent does not condone use of such services, and therefore avoid seeking help for their distress. How much the respondent is likely to accept or utilize services was believed to be more a factor of how much the child perceives the parent to accept such services rather than the parents' actual acceptance levels. Parents' actual acceptance levels of mental health services compared to their child's should be a topic of further study.

Anonymity of Survey

The study was conducted anonymously, through an online survey. While the anonymous status of the survey served to promote honest responses from participants, no additional objective measures were used to assess for distress or even eligibility of the participants. Therefore, this

method of data collection required a compromise in the researchers' ability to guarantee the accuracy of the information that was reported.

Recruitment Methods

Most of the participants for the survey were recruited mainly through personal connections. Participants were also recruited through Texas Exes Asian Alumni Networks, which only represented Vietnamese individuals who were college-graduates from the University of Texas, and the Mother of Perpetual Faith Youth Group, which included only individuals who were of the Catholic faith. The convenience sampling method and limits generalizability of the results and may have produced artificial bias in responses. It is possible that the responses reflected biases towards higher education level and religious affiliation with the Catholic religion.

Future Research

With a small sample size, the current study's findings are limited in their applicability. It is recommended that similar studies, with larger and more representative samples, are conducted in the future in order to answer the questions proposed by this study. It is also recommended that these studies contain a comparison group to compare Vietnamese young adults to the general population. That way, researchers can examine whether this population differs in factors such as perceived parental acceptance, stigma, or distress levels. Such comparisons may help to better explain the lower rates of utilization found in Vietnamese-Americans.

The current study found a relatively strong relationship between perceived parental acceptance of metal health services and personal acceptance of these services. However, the study did not look at actual parental acceptance of such services. It may be beneficial in the

future, to conduct a study that assessed actual parental levels of acceptance towards mental health services in comparison to the young adult's acceptance levels, and how these attitudes towards services are communicated to the children.

The strongest factor related service utilization in the study was found to be the individual's distress level. This suggests that the reason for underutilization of mental health services within the Vietnamese population may be due to lower levels of psychological distress within this population. This finding goes against previous studies, which have shown there to be relatively high rates of emotional disturbance in this population (e.g. Cho & Hummer, 2001; Frisbie, Cho, & Hummer, 2001; Okazaki, 1997). One possibility is that the difference may be due to either lower acknowledgement or recognition of emotional distress in Vietnamese Americans. Lower recognition was meant to be accounted for by using the HSCL-10 measure, which focuses on symptoms associated with distress. However, since high levels of somatization have been reported in this population, it may have been appropriate to include a scale that focused on mainly physical symptoms. The current sample also contained mainly high-functioning individuals. A sample containing individuals with a wide range of educational levels may lead to different results.

The current study focused only on utilization of what was considered "formal" mental health services. However, what is considered to be the most appropriate treatment for a condition can vary from culture to culture. Different cultures may also experience psychological distress in different ways – for example, Asians have been found to experience more physical symptoms associated with depression or anxiety. Because of this, they may find it more appropriate to seek help for their distress from sources that would not be considered a "formal"

mental health professional, such as herbal remedies or physicians. The relationship between how Vietnamese-Americans experience a psychological condition and how they choose to treat it is something that should be more closely examined in the future.

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TABLE 1
Participant Characteristics

Measure		Mean (S.D)	N
Age		23.89 (2.79)	84
How old were you when you came to the U.S.? (foreign-born)		8.07 (5.38)	30
Measure	**Item**	**Percent**	**N**
Gender	Male	51.8	43
	Female	48.2	40
Education	No high school	0.0	0
	High school	3.6	3
	College	62.7	52
	Graduate school and beyond	33.7	28
Were you born in the US?	Yes	64.6	53
	No	35.4	29
Do you have health insurance?	Insured*	73.5	61
	Not Insured**	26.5	22
Referral	TEAAN	12.5	10
	Mother of Perpetual Faith	11.3	9
	Friend/acquaintance	76.3	61

Note. Inconsistencies in N values exist between questions regarding place of birth and age of arrival are due to some respondents not consistently answering all questions on the survey.
*Endorsed item 'Insured under parents,' 'I have my own insurance,' or 'I get free school services
** Endorsed item 'None' or 'Not sure'

TABLE 2
Acceptance of Services for MH Issues

	Personal		Parental	
	Mean (SD) [Range]	N	Mean (SD) [Range]	N
School counselor*	2.20 (1.10) [1-4]	80	1.68 (0.93) [1-4]	76
Family doctor**	2.29 (0.94) [1-4]	80	2.10 (0.94) [1-4]	77
Psychologist/Counselor**[a]	2.10 (0.81) [1-4]	80	1.63 (0.67) [1-4]	76
Herbal treatments	2.30 (1.25) [1-4]	80	2.22 (1.17) [1-4]	76
Medication for psychological difficulties	1.75 (0.72) [1-4]	80	1.61 (0.71) [1-4]	76
Psychiatrist*[a]	1.86 (0.74) [1-4]	80	1.64 (0.71) [1-4]	75
Family	2.88 (0.89) [1-4]	80	2.82 (1.11) [1-4]	77
Religious leader or counselor	1.93 (0.94) [1-4]	80	2.12 (1.06) [1-4]	76
Friends**	3.16 (0.75) [1-4]	80	2.45 (1.13) [1-4]	75
Other	1.24 (0.56) [1-3]	17	1.17 (0.49) [1-3]	23
Formal mental health services**	1.98 (0.68) [1-4]	80	1.63 (0.65) [1-4]	76

Note. Response options ranged from 1-4, with higher scores indicating higher acceptance of the service.
[a] indicates formal metal health services.
*Significant difference at a 0.05 level (2-tailed)
** Significant difference at a 0.0005 level (2-tailed)

TABLE 3
Personal Acceptance of Services – Correlation Matrix

	1	2	3	4	5	6	7	8	9	10	11
1. School counselor	1.00	0.45**	0.39**	0.48**	0.40**	0.47**	0.26*	0.24*	0.24*	-0.19	0.49**
2. Family doctor	0.45**	1.00	0.18	0.43**	0.46**	0.31**	0.30**	0.15	0.31**	-0.24	0.27*
3. Psychologist/Counselor [a]	0.39**	0.18	1.00	0.40**	0.50**	0.55**	0.28*	0.18	0.22*	0.22	0.89**
4. Herbal treatments	0.48**	0.43**	0.40**	1.00	0.54**	0.32**	0.29*	0.31**	0.30**	-0.25	0.41**
5. Medication for psychological difficulties	0.40**	0.46**	0.50**	0.54**	1.00	0.53**	0.25*	0.29**	0.19	-0.05	0.58**
6. Psychiatrist [a]	0.47**	0.31**	0.55**	0.32**	0.53**	1.00	0.15	0.15	0.20	-0.09	0.87**
7. Family	0.26*	0.30**	0.28*	0.29*	0.25*	0.15	1.00	0.08	0.29**	0.16	0.25*
8. Religious leader or counselor	0.24*	0.15	0.18	0.31**	0.29**	0.15	0.07	1.00	0.16	0.06	0.19
9. Friends	0.24*	0.31**	0.22*	0.30**	0.19	0.20	0.29**	0.16	1.00	-0.07	0.24*
10. Other	-0.19	-0.24*	0.22	-0.25	-0.05	-0.09	0.15	0.05	-0.08	1.00	0.07
11. Formal mental health services	0.49**	0.27*	0.89**	0.41**	0.58**	0.87**	0.25*	0.19	0.24*	0.07	1.00

Note. Numbers at the top represent the equivalent categories as numbered items down the left side

[a] Considered a formal mental health service.

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant oat the 0.05 level (2-tailed).

TABLE 4
Parental Acceptance of Services – Correlation Matrix

	1	2	3	4	5	6	7	8	9	10	11
1. School counselor	1.00	0.57**	0.69**	0.23	0.74**	0.71**	0.39**	0.65**	0.60**	0.85**	0.75**
2. Family doctor	0.57**	1.00	0.38**	0.42**	0.44**	0.39**	0.51**	0.51**	0.37**	0.33	0.40**
3. Psychologist/Counselor [a]	0.69**	0.38**	1.00	0.29*	0.78**	0.77**	0.27*	0.53**	0.49**	0.75**	0.94**
4. Herbal treatments	0.23	0.42**	0.29	1.00	0.36**	0.37**	0.51**	0.27*	0.44**	0.40	0.35**
5. Medication for psychological difficulties	0.74**	0.44**	0.78**	0.36**	1.00	0.89**	0.29*	0.56**	0.47**	0.79**	0.89**
6. Psychiatrist [a]	0.71**	0.39**	0.77**	0.37**	0.89**	1.00	0.25*	0.52**	0.47**	0.74**	0.95**
7. Family	0.39**	0.51**	0.27*	0.51**	0.29*	0.25*	1.00	0.56**	0.68**	0.26	0.27*
8. Religious leader or counselor	0.65**	0.51**	0.53**	0.27*	0.56**	0.52**	0.56**	1.00	0.54**	0.52*	0.55**
9. Friends	0.60**	0.37**	0.49**	0.44**	0.47**	0.47**	0.68**	0.54**	1.00	0.37	0.50**
10. Other	0.85**	0.33	0.75**	0.40	0.79**	0.74**	0.26	0.52*	0.37	1.00	0.77**
11. Formal mental health services	0.75**	0.40**	0.94**	0.35**	0.89**	0.95**	0.27*	0.55**	0.50**	0.77**	1.00

Note. Numbers at the top represent the equivalent categories as numbered items down the left side
[a] Considered a formal mental health service.
**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant oat the 0.05 level (2-tailed)

TABLE 5
Personal and Parental Acceptance of Services – Correlation Matrix

	Parental										
Personal	1	2	3	4	5	6	7	8	9	10	11
1. School counselor	0.40**	0.19	0.34**	0.20	0.30*	0.31**	0.13	0.29*	0.25*	0.03	0.49**
2. Family doctor	0.33**	0.45**	0.24*	0.25*	0.23*	0.24*	0.30*	0.32**	0.26*	0.04	0.27*
3. Psychologist/Counselor [a]	0.28*	0.17	0.37**	0.15*	0.26*	0.28*	0.15	0.16	0.16	0.23	0.89**
4. Herbal treatments	0.34**	0.26*	0.35**	0.41**	0.29*	0.34**	0.20	0.18	0.41**	0.38	0.41**
5. Medication for psychological difficulties	0.44**	0.35**	0.53**	0.28*	0.51**	0.53**	0.7	0.25*	0.30**	0.18	0.58**
6. Psychiatrist [a]	0.25*	0.20	0.27*	0.15	0.30*	0.36**	0.03	0.10	0.09	0.18	0.87**
7. Family	0.16	0.11	0.23*	0.23	0.07	0.09	0.29**	0.11	0.35**	-0.41	0.25*
8. Religious leader or counselor	0.54**	0.28*	0.38**	0.13	0.49**	0.41**	0.23*	0.49**	0.30**	0.24	0.19
9. Friends	0.13	0.16	0.04	0.20	0.02	0.01	0.31**	0.19	0.32**	-0.05	0.24*
10. Other	0.48	0.04	0.18	-0.03	0.18	0.12	0.37	0.20	0.55*	0.39	0.07
11. Formal mental health services	0.30**	0.21	0.37**	0.18	0.32**	0.37**	0.11	0.15	0.14	0.23	0.39**

Note. Numbers at the top represent the equivalent categories as numbered items down the left side
[a] Considered a formal mental health service.
**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant oat the 0.05 level (2-tailed)

TABLE 6
Services Sought for Emotional Distress

	Percent	N
Psychologist, PhD [a]	2.9	3
School counselor	3.8	4
Counselor, LPC [a]	1.0	1
Religious leader or counselor	5.7	6
Physician	4.8	5
Counselor, LMFT [a]	1.0	1
Herbal treatments	2.9	3
Medicine	5.7	6
Psychiatrist, M.D. [a]	2.9	2
Family or friends	57.1	60
Counselor, unknown [a]	1.9	2
Other	n/a	0
Formal mental health services	8.9	7

[a] Considered a formal mental health service

TABLE 7
Acculturation Scales

	Vietnamese		American	
	Mean (SD) [Range]	N	Mean (SD) [Range]	N
I am comfortable communicating my ideas and feelings in ____.**	2.40 (0.76) [1.0 -4.0]	83	3.66 (0.50) [2.0 -4.0]	83
I interact well with people my age who are ____.*	3.22 (0.63) [1.0 -4.0]	83	3.41 (0.56) [2.0 -4.0]	83
I follow ____ traditions.	2.99 (0.57) [1.0 -4.0]	83	3.13 (0.46) [2.0 -4.0]	83
____ dishes are an important part of my diet.**	3.35 (0.71) [1.0 -4.0]	83	2.95 (0.68) [1.0 -4.0]	82
I would feel comfortable dating someone who is ____.*	3.43 (0.63) [1.0 -4.0]	82	3.23 (0.61) [2.0 -4.0]	83
I would feel comfortable seeking services from a medical provider who is ____.**	2.94 (0.79) [1.0 -4.0]	83	3.45 (0.55) [2.0 -4.0]	83
Overall acculturation (mean of scale items)**	3.07 (0.42) [1.6 -4.0]	83	3.27 (0.36) [2.4 -4.0]	83
Total Scale Score	15.34 (2.15) [8.0 -20.0]	83	16.35 (1.82) [12.0 -20.0]	83
I identify with ____ culture.	6.81 (1.48) [2.0 -9.0]	83	6.75 (1.55) [2.0 -9.0]	83

Note. Response options ranged from 1-4 for all scale items; Response options for "I identify with ___ culture" ranged from 0-9.
Note. Higher values indicate higher endorsement of the statement.
*Significant difference at a 0.05 level (2-tailed)
** Significant difference at a 0.0005 level (2-tailed)

TABLE 8
Vietnamese Cultural Identity – Correlation Matrix

	1	2	3	4	5	6	7
1. I am comfortable communicating my ideas and feelings in Vietnamese.	1.00	0.33**	0.35**	0.17	0.10	0.10	0.38**
2. I interact well with people my age who are Vietnamese.	0.33**	1.00	0.28*	0.30**	0.42**	0.23*	0.35**
3. I follow Vietnamese traditions.	0.35**	0.28*	1.00	0.31**	0.22*	0.19	0.52**
4. Vietnamese dishes are an important part of my diet.	0.17	0.30**	0.31**	1.00	0.25*	0.04	0.22*
5. I would feel comfortable dating someone who is Vietnamese.	0.10	0.42**	0.22*	0.25*	1.00	0.11	0.38**
6. I would feel comfortable seeking services from a medical provider who is Vietnamese.	0.10	0.23*	0.19	0.04	0.11	1.00	0.15
7. I identify with Vietnamese culture.	0.38**	0.35**	0.52**	0.22*	0.38**	0.15	1.00

Note. Numbers at the top represent the equivalent categories as numbered items down the left side
**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant oat the 0.05 level (2-tailed).

TABLE 9
American Cultural Identity – Correlation Matrix

	1	2	3	4	5	6	7
1. I am comfortable communicating my ideas and feelings in English.	1.00	0.41**	0.30**	0.17	0.14	-0.02	0.36**
2. I interact well with people my age who are American.	0.41**	1.00	0.30**	0.21	0.36**	0.27*	0.37**
3. I follow American traditions.	0.30**	0.30**	1.00	0.29**	0.11	0.05	0.46**
4. American dishes are an important part of my diet.	0.17	0.21	0.29**	1.00	0.20	-0.04	0.36**
5. I would feel comfortable dating someone who is American.	0.14	0.36**	0.11	0.20	1.00	0.28*	0.27*
6. I would feel comfortable seeking services from a medical provider who is American.	-0.02	0.27*	0.05	-0.04	0.28*	1.00	0.11
7. I identify with American culture.	0.36**	0.37**	0.46**	0.36**	0.27*	0.11	1.00

Note. Numbers at the top represent the equivalent categories as numbered items down the left side
**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant oat the 0.05 level (2-tailed).

TABLE 10
Vietnamese and American Cultural Identity – Correlation Matrix

Vietnamese	American						
	1	2	3	4	5	6	7
1. I am comfortable communicating my ideas and feelings in Vietnamese.	-0.09	0.07	-0.12	-0.03	0.12	0.18	0.01
2. I interact well with people my age who are Vietnamese.	0.16	0.30**	-0.06	0.11	0.19	0.36**	0.11
3. I follow Vietnamese traditions.	-0.18	0.01	0.05	0.16	0.08	-0.02	-0.16
4. Vietnamese dishes are an important part of my diet.	0.03	0.16	0.08	0.06	0.12	0.07	0.71
5. I would feel comfortable dating someone who is Vietnamese.	0.02	-0.03	-0.16	0.16	0.3**	0.24*	0.20
6. I would feel comfortable seeking services from a medical provider who is Vietnamese.	-0.02	0.14	-0.08	0.13	0.21	0.12	-0.12
7. I identify with Vietnamese culture.	-0.27*	-0.04	-0.14	-0.060	0.08	0.15	0.02

Note. Numbers at the top represent the equivalent categories as numbered items down the left side
**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant oat the 0.05 level (2-tailed).

TABLE 11
Cultural Identity Scales: Factor Analyses Results

	Vietnamese Loading	American Loading
I am comfortable communicating my ideas and feelings in ____.	.56	.62
I interact well with people my age who are ____.	.75	.80
I follow ____ traditions.	.67	.60
____ dishes are an important part of my diet.	.59	.51
I would feel comfortable dating someone who is ____.	.60	.58
I would feel comfortable seeking services from a medical provider who is ____.	.38	.34

TABLE 12
Cultural Identity Scales Without Medical Provider Preferences: Factor Analyses Results

	Vietnamese Loading	American Loading
I am comfortable communicating my ideas and feelings in ____.	.59	.67
I interact well with people my age who are ____.	.74	.71
I follow ____ traditions.	.67	.64
____ dishes are an important part of my diet.	.63	.55
I would feel comfortable dating someone who is ____.	.61	.53

TABLE 13
Participant Demographics Based on Utilization of Formal MH Services

	Utilizers		Non-utilizers	
Measure	Mean (SD) [Range]	N	Mean (SD) [Range]	N
Age	25.14 (3.24) [22-29]	7	23.89 (2.69) [18-30]	72
Age to the U.S. (foreign-born only)	2.00 (-) [-]	1	8.63 (5.33) [2-20]	27

		Utilizers	Non-utilizers
	Measure	N	N
Gender	Male	2	39
	Female	5	33
Education	High school	0	3
	College	4	44
	Graduate school and beyond	3	25
Place of birth	U.S born	5	46
	Foreign-born	2	25
Insurance	No Insurance★	1	20
	Insured★★	6	52
Referral	TEAAN	2	7
	Mother of Perpetual Faith	0	8
	Friend/acquaintance	5	54

Note. Inconsistencies in N values exist between questions regarding place of birth and age of arrival are due to some respondents not consistently answering all questions on the survey.
★Endorsed item 'Insured under parents,' 'I have my own insurance,' or 'I get free school services
★★ Endorsed item 'None' or 'Not sure'

TABLE 14
Odds Ratio for Predicting Formal MH Service Utilization

Measure	OR	Sig, (2-tailed)	C.I.
Personal Distress Rating*	1.41	.06	.98 – 2.0
HSCL Distress*	2.73	.06	.94 – 7.93
Personal Acceptance of formal mental health services	1.23	.71	.41 – 3.67
Parental Acceptance of formal mental health services	1.23	.72	.39 – 3.90
Vietnamese Cultural Identification	.81	.82	.13 – 5.04
American Cultural Identification	1.01	.99	.11 – 9.44
Personal Stigma	.59	.42	.16 – 2.15
Public Stigma	.85	.75	.31 – 2.31
Stigma	.62	.49	.16 – 2.39

Note. df = 1 for all items. Each variable was tested separately.
Note. N = 83; formal mental health users, n= 7
*. Significant at trend level ($p < .10$)

TABLE 15
Prediction of Acceptance of Formal MH Services by Demographic, Participant, and Parent Variables

Measure	B	S.E.	Beta	Sig (2-tailed)
Age	.02	.03	.09	.45
Age to US (Foreign-born only)	.02	.03	.11	.58
Gender	.11	.15	.08	.47
Education**	.26	.14	.21	.07
Insurance	.14	.18	.09	.44
Referral	-.05	.11	-.06	.64
Personal Distress Rating	.01	.03	.03	.80
HSCL Distress	-.05	.12	-.05	.67
Parental Acceptance of formal MH services*	.39	.11	.39	.001
Stigma	.03	.12	.03	.77
Personal Stigma	-.11	.10	-.13	.26
Public Stigma	.15	.09	.18	.12
American Cultural Identification	-.30	.22	-.15	.17
Vietnamese Cultural Identification	.21	.18	.13	.25

*. Significant at a $p < .001$ level
**. Significant at a trend level ($p < .10$)

BIOGRAPHICAL SKETCH

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EDUCATION/TRAINING			
University of Texas at Austin Austin, Texas	B.S.	2006 - 2010	Psychology
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