

**Conceptualizing factors influencing the perception of barriers to mental health  
treatment and help-seeking behaviors among Chinese Americans**

by

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**ABSTRACT**

*Current literature:* Despite being one of the fastest growing ethnic minority populations in the U.S., research shows that Asian Americans as a whole underutilize mental health treatment. Disaggregation of ethnic subgroups is imperative to identify within and between group differences in intentions to seek help and barriers to treatment. *Study aims:* This study examined selected personal and cultural factors hypothesized to influence attitudes towards professional mental health treatment among Chinese Americans. This study employed an experimental component with mixed qualitative and quantitative methods to explore the effectiveness of alleviating practical and cultural barriers to treatment. *Results:* Results of this study indicated that varied dimensions of culture (i.e., ethnic identity, acculturation, Asian values) were significantly related to different components of respondents' attitudes toward mental health treatment. Results of the experimental manipulation in which practical and cultural barriers were alleviated were related to an increased likelihood to endorse seeking professional mental health treatment. Specifically, a significant experimental group by ethnic identity interaction was found, in that groups with high ethnic identity who had cultural barriers alleviated reported the highest intention to seek psychological help. *Discussion:* Findings of the current study highlight that the information presented about psychological treatment to minority populations can make a difference in influencing intentions to seek help. Clinical implications include the importance of improving therapists' awareness of the types of barriers to treatment clients may perceive and how professionals can make therapy more accessible and comfortable for certain minority populations.

## INTRODUCTION

Asian Americans are one of the largest and fastest growing minority groups in the United States to date. This population is expected to increase by about 213% between 2000 and 2050, as compared to a 49% increase in the general population (Willgerodt & Thompson, 2006). Despite the rapid growth of this population, three issues related to mental health are identified in the literature. First, Asian Americans disproportionately underutilize mental health services. In the well-known Chinese American Psychiatric Epidemiological Study (CAPES), conducted in Los Angeles, only 15% of respondents with diagnosed mental illnesses received mental health treatment; this rate is lower than national rates for Caucasian, African-American, and Latino populations with documented mental health needs (Snowden & Yamada, 2005). The reasons for underutilization have been examined but more research is needed to define and explore specific types of barriers to mental health treatment for the Asian American population.

Second, previous literature and research on minority, specifically Asian American, mental health has been largely limited to the effects of ethnicity and race on outcomes such as overall psychological well-being (Agbayani-Siewert, 2004). Further research must look at the more complex cultural and individual components related to ethnicity and race—such as ethnic identity, acculturation, and Asian values—that also influence well-being, as well as perceptions of possible barriers to treatment, and help-seeking behaviors.

Third, research is limited by the aggregation of data. That is, Asian ethnicities are typically grouped into one homogenous cluster, rendering within-group differences invisible (Agbayani-Siewert, 2004). For example, specific ethnic subgroups, such as Chinese or Japanese, are classified under one general label of “Asian American.” Therefore, current



research must examine the deeper psychological experiences and related help-seeking outcomes of specific Asian subgroups in the United States, as well as effective methods to tailor mental health services appropriately within specific cultural groups. This study will examine personal and cultural factors that influence attitudes towards mental health and mental health treatment, as well as perceived barriers to mental health treatment and intentions to seek help among young adult Chinese Americans.

### **Influence of Minority Status**

#### **Race and Ethnicity**

This study examines personal and cultural aspects of Chinese American ethnicity, specifically ethnic identity, acculturation, and Asian values, and how these factors influence attitudes toward mental health treatment and perceptions of barriers to treatment. In order to understand the influence of ethnic identity, acculturation, and Asian values, one must first examine the effects of ethnicity.

One study by Willgerodt and Thompson (2006) focused on the ethnic and generational influences on emotional distress and risk behaviors among Chinese and Filipino American adolescents, and found that ethnicity was predictive of depressive symptoms for both ethnic subgroups (Willgerodt & Thompson, 2006). It is important to specify which generation is being examined because cultural adaptation is influenced by place of birth and age of migration (Willgerodt & Thompson, 2006). Willgerodt and Thompson (2006) note that a first generation Asian adolescent and a third generation Asian adolescent may present distress behaviors differently. Specifically, their results showed generational influences on somatic symptoms and substance abuse, in that there were more somatic symptoms and substance use reported by third generation Chinese American youth as compared to first and

second generation (Willgerodt & Thompson, 2006). This suggests that there are ethnic and generational influences on overall well-being. However, differences influenced by generational status are hard to find in the literature, despite clinical evidence that shows that different generations have dissimilar experiences that can influence their mental health (Willgerodt & Thompson, 2006). The current study focused on one and half and second generation Chinese adults because the second generation tends to struggle most with the differences they perceive between the host culture and family of origin culture (Willgerodt & Thompson, 2006). Likewise, according to the literature and potential similarity of experiences, a one and half generation individual (i.e., born out the country or moved to U.S. before age of 5) may experience similar adjustment issues as a second generation individual. Therefore, it will be important to look at the social, cultural, and environmental factors specific to certain Asian American subgroups and generation, which may put certain individuals at more risk for depressive symptoms and psychological distress than others.

A study by Agbayani-Siewert (2004) also examined cultural differences in Chinese and Filipino American students' attitudes towards dating violence, finding that Chinese students were significantly different than both Filipino and White students. Chinese students were more likely to justify dating violence, as well as less likely to define physically aggressive behavior as violent (Agbayani-Siewert, 2004). Moreover, the results also showed that Filipino students were more similar to White students than Chinese students across all the outcome variables regarding attitudes and beliefs about dating violence (Agbayani-Siewert, 2004). These findings imply that further research needs to examine Chinese groups separately from other Asian ethnicities, and that Asian Americans are a heterogeneous group necessitating study of specific ethnic subgroups, instead of as a whole.

**Acculturation**

Beyond the effects of ethnicity lies the impact of acculturation on an individual's well-being. An individual experiences acculturation when encountering the values and beliefs of a new host culture, in addition to the values and beliefs of their culture-of-origin (Dao, Donghyuck, & Chang, 2007). An individual who experiences acculturation must decide how much of each culture to retain or lose. Specifically, studies have shown that differences in parental and child acculturation levels can influence the child psychologically, because dissimilar levels of acculturation between generations can magnify the normative challenges of child development (Costigan & Dokis, 2006b). Children struggle with the conflict between their parents' culture of origin, as well as their own host culture in which they are immersed, balancing behaviors, traditions, and cultural values of their parents as well as their own. Furthermore, Costigan and Dokis (2006b) reported that parent-child acculturation level differences may be associated with psychological distress and depression, as well as negativity and isolation, specifically in children. Their study results indicated that when parents were strongly oriented towards Chinese culture, lower levels of Chinese culture among children were associated with lower adjustment (Costigan & Dokis, 2006b). Moreover, a second study by Costigan and Dokis (2006a) found that for parents, instilling ethnic identity and cultural values in children may be associated with more positive family relationships and better psychological well-being. These studies demonstrate that differences in parent-child ethnic identity and acculturation levels do affect each other's well-being and adjustment experiences.

Dao, Donghyuck, and Chang (2007) have also studied the effects of acculturation level, in combination with perceived English fluency, social support, and depression among

Taiwanese international students in the U.S. and found students with low acculturation levels were at most risk for depressive symptoms. Thus, this study specifically shows that acculturation, the exchanging and balancing of two or more cultures, can put certain Asian American subgroups at more risk for symptoms of mental illness or disorder.

In addition to mental health, acculturation also influences other aspects of an individual, such as attitudes toward mental health treatment. Liao, Rounds, and Klein (2005) examined the effects of acculturation on Cramer's help-seeking model for Asian and Asian American students. It has already been established that acculturation level is positively related to attitudes towards counseling, meaning that Asian Americans with higher acculturation levels have more positive attitudes toward counseling (Liao, Rounds, & Klein, 2005). The researchers found that Cramer's help-seeking model can be applied to Asian Americans, but only when taking into account that acculturation influences attitudes toward counseling, which then increases an individual's willingness to seek counseling (Liao, Rounds & Klein, 2005). However, this study grouped many ethnic subgroups of Asian Americans as one large group, and did not look at within-group differences.

Along with acculturation, enculturation has also been shown to influence help-seeking attitudes. Kim's (2007a) study on adherence to Asian and U.S. values and help-seeking attitudes showed that enculturation to Asian values was inversely related to attitudes toward seeking psychological help, while controlling for acculturation to U.S. values. Contrary to other studies, Kim (2007a) also found a lack of association between acculturation to U.S. values and attitudes toward seeking psychological help, while controlling for enculturation of Asian values. These results suggest that Asian American's attitudes toward

help-seeking may be more related to their enculturation to Asian values, rather than acculturation to U.S. values (Kim, 2007a).

### **Ethnic Identity**

Although studies have shown that ethnicity and acculturation can play a role in Asian American mental health and help-seeking, it is important to examine the psychological effects, experiences, and meanings of racial and ethnic identity to an individual as well. Such concepts include ethnic identity, acculturation, and cultural values. Ethnic identity is defined as “an individual's sense of self as a member of an ethnic group and the attitudes and behaviors associated with that sense” (Yeh, pg. 1, 1996; Phinney & Alipuria, 1987). It is crucial to note that ethnicity is consequential for an individual's psychological well-being only when it is an important part of their self-concept (Yip, 2005). When it is significant, ethnic identity is strongly associated with psychological well-being, specifically self-esteem in Asian Americans (Yip, 2005).

Recognizing the voices of Asian Americans, as well as other marginalized ethnicities, can give insight into how these stories affect mental distress and well-being. In her qualitative study, Adler (2001) describes how Asian American narratives of racial and ethnic identity are tied to racism, prejudice, and stereotypes. Focusing on Asian American ethnic subgroups in the Midwestern United States, she tested the applicability of the White and Black Racial Identity Development Theory, which charts racial identity development in continuous stages; she found that lower racial identity was associated with feelings of not belonging, discomfort, and discordance with culture of origin (Adler, 2001). However, only some items on the White and Black Racial Identity Development Theory were compatible with responses from the Asian American sample, and neither theory completely represented

the experiences and narratives of the Asian Americans in the study. Hence, Adler suggests that the visibility of White and Black groups, and the dichotomous views of race in our society, may lead to the further invisibility of Asian Americans (Adler, 2001). Therefore, research in this area must focus on bringing Asian American issues to the forefront, while also specifying within group differences in order to fully understand the range of cultural and psychological issues related to racial identity for Asian Americans.

Multiple studies have also shown that ethnic identity is also associated with numerous positive psychological outcomes in Asian Americans. For instance, Yip (2005) cites that there is a positive association between ethnic identity, well-being, and self esteem. Her study examined the different effects of ethnic centrality, ethnic salience, and private ethnic regard on Chinese American university students, half born in the U.S. and half born in Hong Kong, China, or Taiwan (Yip, 2005). The researchers found that positive regard for oneself, as well as positive regard for one's ethnic group, affected the association between ethnic salience, positive feelings, and well-being (Yip, 2005). Therefore, ethnic identity in Asian Americans can be associated with both positive and negative feelings and attitudes towards the self, culture and family of origin, and host culture. Thus, it is important to look at the clinical implications of ethnic identity in Asian Americans, their attitudes towards help-seeking, as well as possible treatment barriers.

### **Asian Values**

Another factor that influences Asian American ethnic identity is cultural values and beliefs. Asian cultures tend to be more collectivistic and interdependent than their Western counterparts, and traditions of "filial piety, parental authority, restrained emotional expression, and lifelong obligation to family, and family harmony" are held in high esteem

(Costigan & Dokis, 2006a). The combination of an Asian Americans' ethnic identity and adherence to traditional Asian values can furthermore affect their help-seeking behavior when it comes to mental health issues. Asian values pertain to familial insulation and privacy about mental or physical problems within the family. These values can then feed into the stigma surrounding mental illness in Asian American culture.

Contrary to North American values of independence and individualism, Asian American ethnic identity is uniquely characterized by both interdependence and collectivism. Collectivistic cultures consider familial, social and cultural values over individual and self needs and desires. Generally, collectivistic cultures value interdependence over their own autonomy and independence. Research has shown that Asian Americans tend to define themselves in relation to others around them, specifically family. This collective identity takes precedence over the individual identity. Asian cultures also link this interdependence with the ideas shame and loss of face, meaning that the individual has the power to shame themselves as well as their family; these are used to further enforce, protect, and preserve culture and familial obligation (Yeh, 1996). Collectivism does not necessarily have a negative affect on an individual. However, if an individual does bring shame to their family, they may face feelings of guilt and inferiority, which can further act as negative reinforcement (Yeh, 1996). These collectivistic values may hinder Asian Americans from seeking help because of the emphasis on familial insulation and saving face, thereby creating a cultural barrier to seeking treatment. These traditionally collectivistic and interdependent values also go against the normative North American values of individualism and independence, so Asian Americans can be faced with tension in integrating the two cultures. Whether they conform to their cultures of origin or host cultures, Asian Americans face

tension in the balancing of cultures, which can affect attitudes towards necessary mental health treatment.

Current studies are looking at the loss of culture-of-origin against the acquisition of the new host culture. Results from Kim's (2007b) survey regarding Asian values and help-seeking show that Asian American's positive attitudes toward help-seeking are associated specifically with their loss of traditional Asian values, not the acquisition of U.S. values. Kim (2007b) found that the elements of collectivism, emotional self-control, and humility were strong predictors of help-seeking attitudes, as well.

This study will examine how these personal and cultural factors (ethnic identity, acculturation, Asian values) influence Chinese American individual's attitudes towards mental health and mental health treatment. Furthermore, since attitudes can greatly affect one's perceptions of barriers to treatment, it is also important to discuss the various types of barriers that may obstruct individuals from seeking help from professionals.

## **Barriers to Treatment**

### **Practical Barriers**

There are many types of barriers to seeking professional mental health treatment. One type of barrier encompasses the practical and structural issues that may prevent Asian Americans from receiving the necessary services. These practical barriers often include knowledge of access to treatment, cost and time of treatment, and lack of English proficiency (Kung, 2004). Other practical barriers may be lack of transportation, lack of childcare, unmanageable distance to service centers (Leong & Lau, 2001). The combination of socioeconomic realities, and cultural values and beliefs, can lead Asian Americans to try and cope with distress individually, or to ignore and disregard stress altogether. Therefore, it is



important for further research to examine the different effects of these practical barriers, and to determine where interventions can be implemented to increase usage of mental health treatment by Asian Americans.

### **Cultural Barriers**

Although practical barriers have been found to impede help-seeking behaviors, cultural barriers are another reason for lack of mental health service utilization. Although the few studies mentioned above have shown that Asian Americans are seeking mental health care more often, and that there are effective treatments for physical illness, it is more common to find that the cultural differences in access to care may prevent them from getting the help that they need. Census studies have shown that ethnic minorities are among the least likely to receive the necessary and appropriate treatment for their needs (Snowden & Yamada, 2005). Specifically, in 2001, the Department of Health and Human Services' Executive Summary reports that ethnic minorities tend to seek treatment less, and when they do, they receive a poorer quality of treatment (Snowden & Yamada, 2005). Snowden & Yamada (2005) also specifically discuss the varying cultural hypotheses to this lack of receiving services, including the use of alternative treatments, trust and treatment receptiveness, stigma, different ways of symptom expression and coping skills, lack of insurance, and lack of English language skills. (It is noted that language can be view as practical and cultural barrier simultaneously.) All of these factors may have led to the limited use of mental health services by Asian Americans, but more research is needed to accurately examine the specific cultural barriers to treatment for each specific ethnic subgroup.

One cultural factor in an individual's decision to seek treatment is the issue of stigma. In this context, stigma refers to "a collection of negative attitudes, beliefs, thoughts, and

behaviors that influences the individual, or the general public, to fear, reject, avoid, be prejudiced, and discriminate against people with mental disorders” (Gary, pg. 980, 2005). Mental health issues and disorders can carry an extremely negative connotation in society today for all individuals. However, Gary (2005) emphasizes that ethnic minorities who need mental health services face a “double stigma”—facing prejudice and discrimination based on their ethnicity as well as their mental health status. Stigma can be placed on an individual by the general public, or even as self-stigma, where the individual internalizes the negativity from outside influences, leading to diminished self-esteem, self-efficacy, and feelings of hopelessness and despair (Gary, 2005). Therefore, future studies must look at the effects of the different kinds of stigma, and especially the double stigma experienced by ethnic minorities, and how this plays a role in help-seeking behavior and treatment efficacy.

For Asian Americans, another cultural barrier related to stigma is the issue of shame. Fong and Tsuang (2007) discuss how there is shame in asking for help because it can represent how a family failed to resolve the situation itself. Shame can be experienced on an individual level, where the individual feels ashamed to be struggling with depression and denies their distressing situation in order to refrain from disappointing the family or disrupting family harmony, leading to further familial insulation of physical or psychological illnesses. Many Asian cultures view mental illness as a personality weakness and as a sign of lack of willpower, and value self-control and solving problems individually over asking for help (Kung, 2004). Furthermore, shame can also be experienced on a familial level, where the family will try to keep the individual with the illness insulated and sheltered away from larger society, as to save face for the entire family, sometimes at the expense of their mental health as well. It is therefore important to look at the relationship between stigma and shame

in Asian American individuals and families, and how they may act as barriers to mental health treatment.

A third cultural barrier is how Eastern cultures tend to view Western medicine and health practices. Research studies have shown that Asian Americans may contain a general level of distrust and mistrust in Western health practices (Fong & Tsuang, 2007). Therefore, Asian Americans sometimes use more holistic treatments instead of Western medicines instead, out of belief that the mind, body, and spirit are connected; likewise, Asian Americans tend to somaticize discomfort and express physical ailments more so than psychological distress (Kung, 2004). Thus, Asian American views of Western medicine also play a role in whether or not they will seek treatment.

### **Help-Seeking Behaviors**

Although the existing literature has discussed many types of practical and cultural barriers found in the decision to seek mental health treatment, a few studies have also shown that Asian Americans do seek help when in mental and physical distress. In a qualitative study by Pang, Jordan-Marsh, Silverstein, and Cody (2003), older adult Chinese Americans reported seeking more help from neighbors, friends, and community centers, rather than depending solely on their families, suggesting a slight shift from the traditionally Asian values of filial piety and family harmony. This study also examined the various practical (i.e., affordability, knowledge, access, transportation) and cultural (i.e., language, attitudes towards health care) barriers that are common for Asian Americans when seeking medical services (Pang, Jordan-Marsh, Silverstein, & Cody, 2003). This study focused on shifts in expectations of health services and support networks, and found that lack of English-proficiency was the greatest reported concern to accessing health care (Pang, Jordan-Marsh,

Silverstein, & Cody, 2003). Thus, despite the perceived barriers, Asian Americans have been shown to seek medical health care from friends and community members when necessary.

Similarly, there have also been treatment interventions that have positive effects on Asian Americans with chronic physical illnesses. Wong, Chau, Kwok, and Kwan (2007) conducted a study that showed positive effects of Cognitive-Behavioral Treatment (CBT) in groups of people with chronic physical illnesses in Hong Kong. The CBT treatment was designed with Chinese culture in mind, emphasizing structured format and active and directive leaders. The results indicated that individuals in the treatment group showed signs of improvement in mental health, negative automatic thoughts, and negative emotions, as compared to the control group (Wong, Chau, Kwok, & Kwan, 2007). This demonstrates that culturally attuned treatments can lead to better outcomes for Chinese Americans with physical illnesses. However, research on Chinese American interventions and treatments for psychological illnesses remains sparse.

### **Study Rationale**

Studies have consistently demonstrated that there are many dimensions of influence to mental health in Asian Americans. Research needs to look at the psychological factors that influence help-seeking attitudes and decisions on seeking help (Vogel, Wester, Wei, & Boysen, 2005). Research has also shown that cultural barriers may be just as prominent as practical barriers in seeking mental health treatment, and these barriers can impede mental health treatment seeking behaviors.

The first research question of this study (Figure 1) examines the relationship between cultural factors (ethnic identity, acculturation, Asian values) and attitudes toward mental health and seeking mental health treatment. It is hypothesized that higher levels of ethnic

identity and Asian values, and lower levels of Western acculturation, will correspond to higher endorsement of cultural influences on attitudes to seeking mental health treatment. This means that participants high on ethnic identity and Asian values, and low on acculturation level will be more likely consider cultural factors in their attitudes towards treatment.

The second research question of this study (Figure 2) examines the relationship between perceptions of barriers to mental health treatment and the participant's report of intended behavior to seek help given a hypothetical situation. It is hypothesized that the groups with practical or cultural barriers alleviated will report fewer perceptions of

Figure 1. Conceptual model for research question #1, depicting personal and cultural factors influencing the perception of and attitudes to seeking mental health treatment (based on Vogel, Wester, Wei, and Boysen 2005).

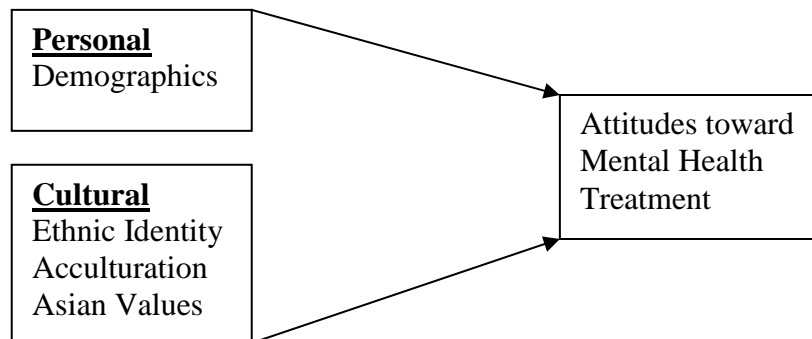
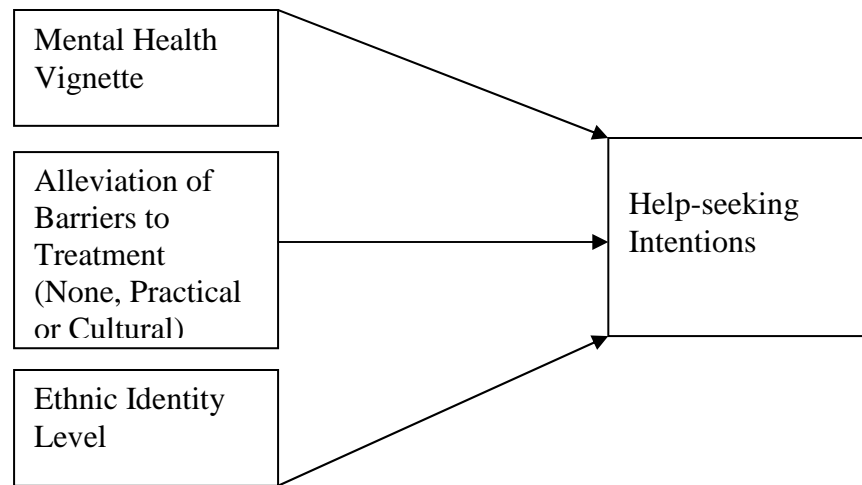


Figure 2. Conceptual model for research question #2, depicting help-seeking intentions based on experimental manipulation using hypothetical mental health vignettes, alleviation of barriers, and ethnic identity level (based on Vogel, Wester, Wei, and Boysen 2005).

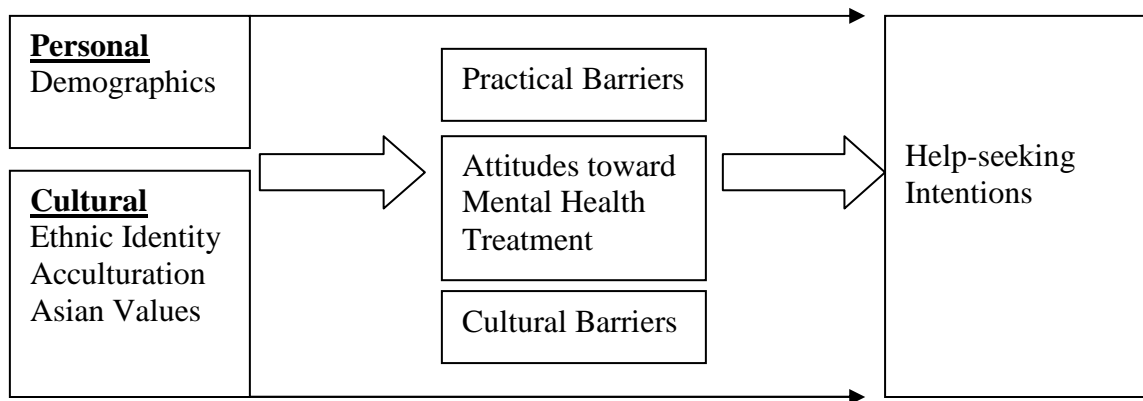


barriers, overall, as compared to the standard group with no barriers alleviated. It is also hypothesized that the two experimental treatment groups (i.e., practical or cultural barrier alleviation) will be more likely to report that they would seek mental health treatment, as compared to the standard group for whom no barriers are alleviated.

Figure 3 shows the connection between personal, cultural, and social variables related to perceptions of treatment barriers and help-seeking intentions. However, the model in the current study brings more attention to ethnic influences on attitudes toward treatment, and perceptions of cultural and practical barriers to treatment. The current study aims to identify appropriate avenues for interventions. As it is likely difficult and unethical to change an individual's personal and cultural influences, it may be more practical to decrease treatment barriers and create more culturally attuned treatments. Therefore, the use of an experimental design in the current study will allow the researcher to test effective foci for intervening and changing an individual's perceptions of barriers to treatments for the Chinese and Chinese American population.



Figure 3. Conceptual model depicting personal and cultural factors influencing the perception of practical and cultural barriers, attitudes to seeking mental health treatment, and help-seeking intentions (based on Vogel, Wester, Wei, and Boysen 2005).



## **METHOD**

### **Design**

This study incorporated an experimental, cross-sectional design in which participants indicate the degree to which they endorse various approaches to a hypothetical mental health problem. Participants were randomly assigned to one of three experimental conditions: (a) standard vignette in which potential treatment barriers are not addressed, (b) vignette in which potential practical barriers are addressed, and (c) vignette in which potential cultural barriers are addressed.

The independent variables were grouped into two categories: personal (demographics), and cultural (ethnic identity, acculturation, Asian values). The dependent variables were attitudes (attitudes toward mental health and mental health treatment) and perception of cultural and practical barriers towards mental health treatment and help-seeking behaviors. In this study, the dependent variables were assessed with close-ended questionnaires, as well as open-ended responses to vignettes.

### **Procedure**

The questionnaires were administered via an online survey in English using Survey Monkey. Online data collection was deliberately chosen to increase sample size and response rates among this difficult to reach population (for discussion see Wei, Heppner, Mallen, Ku, Liao, & Wu, 2007). The overall procedure of the survey is shown in Figure 4.

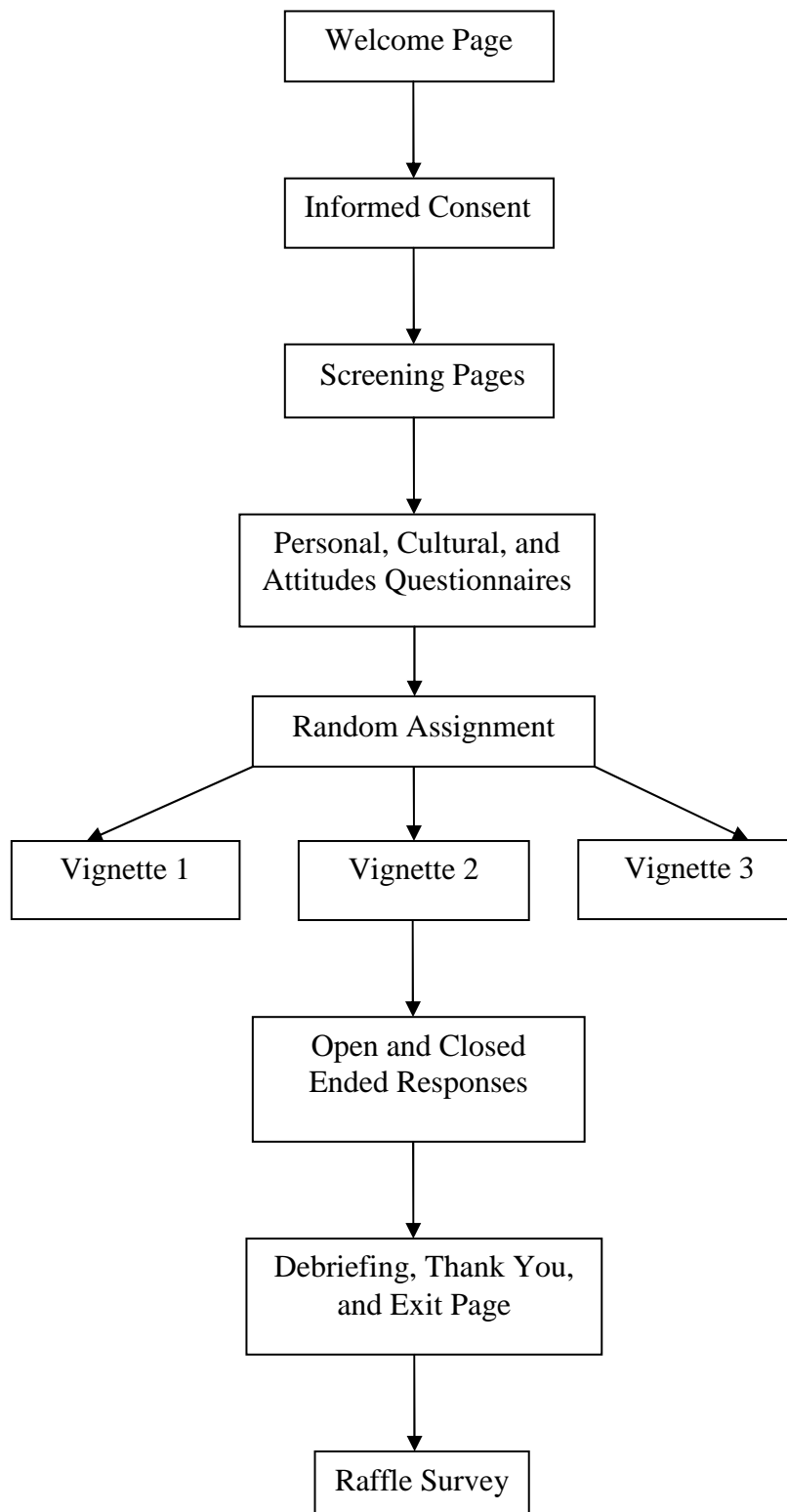
Participants were first given the informed consent page. If they gave consent, they were screened for ethnicity, generation, and age. Participants who did not fulfill the criteria to take the survey were directed to an end page thanking them for their time and participation. Participants who did fulfill the criteria (e.g., Asian or Asian American, 18-30

years old, able to complete the survey in English) were directed to the informed consent page and proceeded with the survey.

First, these participants completed the same core information: the personal and cultural groups of questionnaires. Then, participants were randomly directed to one of three vignettes, depicting experience of depressive symptoms, and related to seeking mental health treatment, in which they will be asked to create their own solution. Participants were then given a series of solutions and asked to rate the likelihood that they would execute them. They were given a table of barriers and asked to rank the barriers in order to how much they impeded their own help-seeking behaviors. At the conclusion of the survey, participants indicated their desire to be included in a raffle for a \$20 gift certificate. One raffle occurred for each group of 25 consecutive participants. Lastly, participants were asked if they wanted to know the results of the survey, and were provided their contact information if they desire. Participants were then directed to a page thanking them for their time and participation.

After data collection for the study was completed, the researcher examined the data to determine what ethnicity each participant identified with. The variables of interest were the participant's self-reported country of origin, mother's country of origin, and father's country of origin. Participants were also allowed to give more information regarding their sense of belonging to a certain ethnicity or culture in an open ended response box, if they chose.

Figure 4. Procedural chart for survey.



The researcher categorized the participant as “Chinese” if their country of origin, mother’s country of origin, and father’s country of origin reported that they were from China, an area within China (i.e., Hong Kong, Macau), or Taiwan. Sometimes, participants indicated that they were born in the United States but that both parents were from China, or that they were raised in another country but considered themselves Chinese. These participants were also categorized as “Chinese” for the purpose of the study. Data from participants who self-identified as other ethnicities (i.e., Indian, Korean, Samoan, etc) were not analyzed or included in this study sample.

### **Participants**

Originally, the research targeted only Chinese and Chinese American individuals in recruitment participants. However, due to feedback on specific forums about the study’s alleged exclusion of other Asian American subgroups, recruitment was expanded to reach out to any and all Asian American subgroups. Therefore, recruitment targeted Asians of any ethnicities, and all were allowed to take part of the survey.

Participants were recruited through emails. These email templates were IRB approved. Websites of the top 100 universities in the United States were used to find Asian American organizations, clubs, and student groups. Recruitment emails were sent to the email addresses of the leaders, contact persons, and members. We also researched neighboring community organizations, clubs, and mailing lists to find participants. Recruitment information was also posted on various Asian American forums.

Participants met several inclusion criteria. First, participants self-identified as Asian or Asian American. The target population consisted of first, one and a half (i.e., born out the country or moved to U.S. before age of 5) and second generation (i.e., born in the U.S.,

parents born outside of U.S.) Chinese or Chinese American individuals residing in the United States. Second, participants were between ages 18 to 30 years. Third, participants indicated that they were able to read and respond in English. This study focused on a small age range in order to better control for developmental differences and changes while still allowing for some variation of experience. The target was to have 80 - 100 participants, with 20 - 25 in each experimental condition.

### **Missing Data**

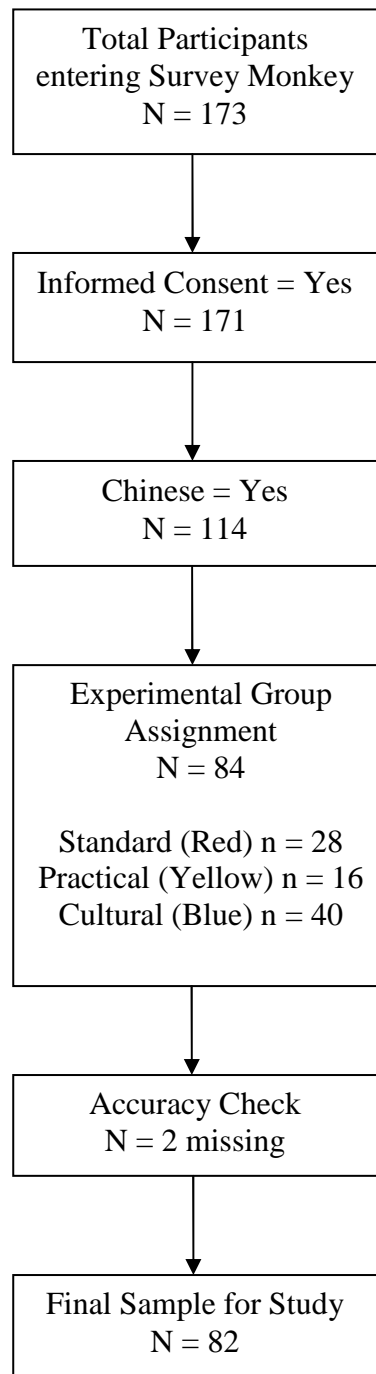
Figure 5 shows the procedure for analyzing the final sample of participants for this study. This figure describes the participant selection process after all data was collected. For the study, some participants had to be excluded because they did not agree with the informed consent form, did not identify as Chinese or Chinese American, and/or did not accurately answer the accuracy check question. Some participants began the survey and did not complete the entire questionnaire, resulting in missing data. If participants did not make it to the experimental manipulation, the researcher did not count them in the final sample for the study. Thus, only participants who answered all the questionnaires before the experimental manipulation, as well as the open and closed ended responses to the vignettes were considered participants in the final sample ( $N = 82$ ). Lastly, participants who answered the accuracy check question incorrectly, and were dropped from the final sample as well.

The final sample for the study consisted of 82 Chinese American participants. Table 1 describes the demographics of the sample by experimental group. An analysis of variance was conducted to determine if there were group differences in age, and no

Table 1. Demographics characteristics of the study sample.

|               | Standard<br>(N = 28) |           | Practical<br>(N = 16) |           | Cultural<br>(N = 38) |           | Incomplete Data<br>(N = 30) |           |
|---------------|----------------------|-----------|-----------------------|-----------|----------------------|-----------|-----------------------------|-----------|
|               | <i>Mean</i>          | <i>SD</i> | <i>Mean</i>           | <i>SD</i> | <i>Mean</i>          | <i>SD</i> | <i>Mean</i>                 | <i>SD</i> |
| Age           | 22.07                | 3.14      | 21.5                  | 1.75      | 23.57                | 4.19      | 21.56                       | 2.91      |
|               | <i>N</i>             | <i>%</i>  | <i>N</i>              | <i>%</i>  | <i>N</i>             | <i>%</i>  | <i>N</i>                    |           |
| Education     |                      |           |                       |           |                      |           |                             |           |
| Undergraduate | N = 24               | 85.7%     | N = 15                | 93.8%     | N = 31               | 81.6%     | N = 13                      |           |
| Graduate      | N = 2                | 7.1%      | N = 1                 | 6.2%      | N = 6                | 15.8%     | N = 2                       |           |
|               |                      |           |                       |           |                      |           | Missing = 15                |           |
| Sex (Female)  | F = 17               | 60.7%     | F = 14                | 87.5%     | F = 24               | 63.2%     | F = 15                      |           |
|               |                      |           |                       |           |                      |           | M = 4                       |           |
|               |                      |           |                       |           |                      |           | Missing = 11                |           |
| Generation    |                      |           |                       |           |                      |           |                             |           |
| First         | N = 13               | 46.4%     | N = 5                 | 31.2%     | N = 17               | 44.7%     | N = 1                       |           |
| Second        | N = 14               | 50%       | N = 10                | 62.5%     | N = 20               | 52.6%     | N = 1                       |           |
|               |                      |           |                       |           |                      |           | Missing = 28                |           |

Figure 5. Procedural chart documenting finalization of the study sample.





significant differences were found. A chi-square analysis was conducted and there were no group differences in education, sex, and generation.

### **Measures**

Table 2 describes all the measures used in this study.

#### **Demographics**

The demographic measure asked personal questions regarding the participant's age, marital or relationship status, socioeconomic status, education level, and family within geographic proximity, and location.

Following the demographic measure, this study focused on two domains of influence on participant mental health and help-seeking behaviors: cultural and attitudes (see Table 1). Measures within these categories are described below.

For this study, preliminary analyses of our measures demonstrated good reliabilities, skewness, and kurtosis. Table 2 shows the means, standard deviations, and observed ranges of all the measures used in this study.

There was also a question added for a validity check. The question read: "To ensure accuracy for this survey, please click 'Very Likely' for this question." Participants who answered this question incorrectly were not used in the total sample. The question was administered after the demographics questions and before the cultural questionnaires.

Table 2. Table of constructs, measures, and sources.

| CONSTRUCT   | MEASURE  | SOURCE   |
|---|--|--|
| Personal Characteristics                                |  |  |
| Demographics  |  |  |
| Cultural Factors  |  |  |
| Acculturation   | The Suinn-Lew Asian Self Identity Acculturation Scale (SL-ASIA)  | Suinn, Ahuna, & Koo (1992)   |
| Asian Values  | Asian Value Scale –Revised (AVS-R)   | Kim & Hong (2004)  |
| Ethnic Identity   | Multigroup Ethnic Identity Measure (MEIM)  | Phinney (1992)   |
| Perceptions of Mental Health and Mental Health Services |  |  |
| Attitudes towards Mental Health                         | Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS); Thoughts about Psychotherapy Survey (TAPS) | Fischer & Farina (1995)<br><br>Kushner & Sher (1989)   |
| Barriers to Treatment                                   | Measure created for this study   | Close-ended measure based on Cooper-Patrick, Powe, Jenckes, Gonzales, Levine, & Ford (1997), and Cooper, Hill, & Powe (2002) |
| Problem-Solving   | Vignettes  | Vignettes based on Griffiths, Nakane, Christensen, Yoshioka, Jorm, & Nakane (2006)   |

## Cultural

The second category of measures assessed cultural influences, specifically ethnic identity, Asian values, and acculturation. These measures were chosen based on their theoretical relevance and use in prior studies with Asian American respondents.

The 12-item Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992; Ponterotto, Gretchen, Utsey, Stracuzzi, & Saya, 2003; Roberts, Phinney, Masse, Chen, Roberts, & Romero, 1999) was used to determine ethnic identity. This measure is comprised of two sections: ethnic identity search (a developmental and cognitive component) and affirmation, belonging, and commitment (an affective component) (Phinney, 1992). The items are placed on a 4-point Likert-type scale ranging from 4 (*strongly agree*) to 1 (*strongly disagree*). Items are summed and averaged to determine ethnic identity level. A sample item is “I think a lot about how my life will be affected by my ethnic group membership” (Item 4; Phinney, 1992). The MEIM has good reliability, with alphas above .80 (Phinney, 1992). For this study, the MEIM (12 items;  $\alpha = .93$ ) had a good reliability score. The MEIM total score ( $M = 3.13$ ,  $SD = .56$ ) showed slightly higher ethnic identity scores overall. The skewness and kurtosis were  $-.48$  and  $.68$  respectively.

The 25-item Asian Values Scale - Revised (AVS-R; Kim, Atkinson, & Yang, 1999; Kim & Hong, 2004) was used to measure Asian values and beliefs. This measure uses a 4-point Likert-type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*).

A sample item is “One should not deviate from familial and social norms” (Item 1; Kim & Hong, 2004). Coefficient alphas above .80 have been obtained (Kim, Atkinson, & Yang, 1999). For this study, the AVS-R (25 items;  $\alpha = .81$ ) also had a good reliability score. The AVS-R ( $M = 2.37$ ,  $SD = .29$ ) showed average levels of Asian value adherence and beliefs. The skewness and kurtosis were .258 and .816 respectively.

The 26-item Suinn-Lew Asian Self-Identity Acculturation Scale (SL-ASIA; Suinn, Ahuna, & Khoo, 1992) was used to measure acculturation level. Studies have found concurrent validity between the AVS and SL-ASIA (Kim & Hong, 2004). The first 21 items are from the original scale, while the last 5 items were added later to show how acculturation is non-linear and multidimensional. For example, questions in the SL-ASIA include those of languages that are spoken and preferred, as well as an individual’s cultural food preferences. For this study, the SL-ASIA (26 items;  $\alpha = .81$ ) also had good reliability in this study. The SL-ASIA ( $M = 2.91$ ,  $SD = .47$ ) showed average levels of acculturation. The skewness and kurtosis were -.41 and -.01 respectively.

### **Attitudes Toward Mental Health and Help-Seeking**

The third category of measures assesses attitudes and beliefs regarding mental health and help-seeking, specifically attitudes toward seeking psychological help, thoughts about psychotherapy, and barriers to treatment.

The 10-item Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS; Vogel, Wester, Wei, & Boysen, 2005; Fischer & Farina, 1995) was used to measure participant’s attitudes toward seeking professional mental health services. The items in this measure are rated on a 4-point Likert scale ranging from 1 (*disagree*) to 4 (*agree*). The internal consistency for this measure is .84 (Vogel, Wester, Wei, & Boysen,

2005). Higher scores reflect more positive attitudes toward help-seeking. For this study, the ATSPPHS (10 items;  $\alpha = .86$ ) also had a good reliability score. The ATSPPHS ( $M = 26.03$ ,  $SD = 6.52$ ) measures a range of attitudes towards seeking help. The skewness and kurtosis were  $-.26$  and  $-.53$  respectively.

The 19-item Thoughts about Psychotherapy Survey (TAPS; Vogel, Wester, Wei, & Boysen, 2005; Kushner & Sher, 1989) was used to measure participants' fears about treatment. The items are rated on a Likert scale ranging from 1 (*no concern*) to 5 (*very concerned*). The TAPS has three subscales to measure an individual's thoughts toward psychotherapy: Therapist Responsiveness, Image Concerns, and Coercion Concerns. The internal consistencies for the subscales of this measure have been found to be Therapist Responsiveness (.92), Image Concerns (.87), and Coercion Concerns (.88; Vogel, Wester, Wei, & Boysen, 2005; Kushner & Sher, 1989). For this study, the TAPS (19 items;  $\alpha = .96$ ) also had a very good reliability score. The TAPS ( $M = 50.23$ ,  $SD = 19.86$ ) assesses an individual's level of concern for three aspects of psychotherapy—therapist responsiveness, image concerns, and coercion concerns. The skewness and kurtosis were  $.18$  and  $-.73$ .

## **Primary Outcomes**

### **Problem-Solving Vignettes**

Vignettes have been used in various types of research to assess individual's attitudes and perceptions toward a specific situation involving depressive symptoms. Wason, Polonsky, and Hyman (2002) describe the benefits of using vignettes; they can be used to evaluate ethical judgments, behavioral intentions, and to test theories. Wason et. al. (2002) also illustrate some significant factors in the design of vignettes, including

making vignettes believable, adequately detailed, keeping the tone consistent with the research topic at hand, making the manipulated variables obvious, and being cautious about potential framing effects (Wason, Polonsky, & Hyman, 2002). The current study utilized vignettes depicting depressive symptoms from Griffiths, Nakane, Christensen, Yoshioka, Jorm, and Nakane's (2006) study of stigma and mental disorders. For this study, the original vignettes were changed from the third person to first person (see Appendix A). Also, a few sentences were added to create each of the three manipulations (standard, practical, and cultural).

Lu, Daleiden, and Lu (2007) conducted a study where Chinese school children were asked to listen to a vignette type story and rate how threatening it was. The researchers allowed the children to give open-ended responses to the stories, and also asked the children to rate various feelings on a closed-ended rating scale. The current study used both open and closed response methods to evaluate participants' perceptions of and solutions to the vignettes. The use of empirically valid and reliable scales, as well as allowing participants to generate their own unique responses, allowed the examination of an array of responses to the respective vignettes and left room for responses that may not have been detected by using only one method (only open or closed-ended) of evaluating the participants' responses to the vignettes.

The researcher also created a measure to assess for perceived barriers to treatment and intention to seek mental health treatment, which was given to the participants after they read the vignette. The close-ended measure was adapted from lists of perceived treatment factors, influences, and interventions, as reported by focus groups from studies by Cooper-Patrick, Powe, Jenckes, Gonzales, Levine, and Ford (1997), and Cooper, Hill, and Powe

(2002). There were open-ended response sections, after the vignettes, to give participants a chance to generate their own unique responses. These open-ended responses were coded during data analysis, as well.

### **Vignette Response Coding Process**

The open-ended responses to the vignettes were coded according to a qualitative data coding process which included using a codebook with accompanying coding instructions. The codebook was created with specific instructions for coding the responses (see Appendices B and C). This codebook included categories to match accordingly with participants' open-ended solutions and responses. Categories were chosen based on the perceived treatment factors and influences from the Cooper-Patrick, Powe, Jenckes, Gonzales, Levine, and Ford (1997), and Cooper, Hill, and Powe (2002) studies. These categories included family, friends, counselor, significant other, yourself, pastor, pray, boss, exercise, sleep, substance abuse, other, uncodeable, and missing. The coding instructions included keywords for each category to help the coders determine which category fit best.

All participants were asked to provide three responses or solutions to their respective experimental vignette. Some participants provided responses with only one part, while others possibly provided one or more parts. An example of a one part response was "talk to my friends." An example of a two part response was "talk to my friends and family." Responses had up to four parts. Separate parts of a response were delineated in the excel codebook with a slash mark. An example of a separated response was "talk to my friends / and family."

Sometimes participants added qualifiers to their responses. These qualifiers served to explain or give reasoning to their created solutions, or simply pose questions about the vignettes. An example of a qualifier was “why am I assumed to be depressed?” These qualifiers were counted as “uncodeable.” The categories of “other” and “uncodeable” were last resorts, and coders attempted to find another category for the response before using these. Missing responses were coded as “missing.”

For the analysis of the qualitative data from the experimental vignettes, we created a dichotomous variable for intention to seek counseling (based on the vignette). Participants were coded as “yes” or “no” for intention to seek counseling. Each participant generated up to three solutions for their respective vignette. Coders looked at all responses generated, and if any of the solutions included seeking a counselor, that participant was coded overall as “yes,” intending to seek a counselor, based on the vignette. If none of the participant’s three responses included seeking a counselor or therapist, then the participant was coded overall as “no,” not intending to seek a counselor, based on the vignette. Inter-rater reliability between the two coders was high (87.9%), determined by dividing the total agreed responses by total number of responses.



## RESULTS

There were two separate analyses conducted to answer the research questions in this study. A hierarchical regression was conducted to examine the effects of the personal and cultural factors that influenced attitudes towards treatment, in the first research question. An analysis of variance (ANOVA) was conducted to examine the interaction between experimental group, ethnic identity level, and intention to seek help, in the second research question.

### Preliminary Analyses

The distributional properties of the major study variables were examined as well as the relation between these variables and overall adequacy of random group assignment. Next, the adequacy of random group assignment was examined. The means, standard deviations, and ranges of scores for each experimental group are depicted in Tables 3 and 4. Table 3 consists of the measures that were given before the experimental manipulation and randomization of groups. Table 4 consists of the closed- and open-ended measures administered after the randomization of experimental groups.

Random assignment of participants to experimental groups (i.e., the standard, practical, and cultural groups) did not result in equal sample sizes in each group. The numbers of males and females in each experimental group were also unequal, with the most unbalanced sample in the Practical group (males = 2, females = 14). However, the sex distribution in the standard (males = 11, females = 17) and cultural (males = 14, females = 24) groups were more proportionate to the sex ratio for the total sample.

To ensure the adequacy of random group assignment, analysis of variance (ANOVA) tests conducted to examine potential group differences on independent

Table 3. Experimental group means, standard deviations, and observed ranges on primary variables assessed prior to experimental manipulation.

|         | Standard |           |              | Practical |           |              | Cultural |           |              |
|---------|----------|-----------|--------------|-----------|-----------|--------------|----------|-----------|--------------|
|         | <i>M</i> | <i>SD</i> | <i>Range</i> | <i>M</i>  | <i>SD</i> | <i>Range</i> | <i>M</i> | <i>SD</i> | <i>Range</i> |
| MEIM    | 3.20     | .55       | 2.25-4       | 3.33      | .52       | 2.5-4        | 3.05     | .55       | 1.67-4       |
| AVS-R   | 2.37     | .29       | 1.76-3.08    | 2.37      | .21       | 2.12-2.76    | 2.34     | .27       | 1.56-2.92    |
| SL-ASIA | 2.87     | .41       | 1.95-3.52    | 2.89      | .45       | 2.33-3.67    | 2.90     | .47       | 1.90-3.67    |
| TAPS    | 50.38    | 21.50     | 19-87        | 52.94     | 21.32     | 19-95        | 52.81    | 19.63     | 19-95        |
| ATSPPHS | 24.70    | 5.00      | 16-34        | 24.06     | 6.90      | 14-33        | 27.14    | 6.90      | 10-36        |

Note: No significant group differences. MEIM = Multigroup Ethnic Identity Measure (Phinney, 1992), AVS-R = Asian Values Scale–Revised (Kim & Hong, 2004), SL-ASIA = The Suinn-Lew Asian Self Identity Acculturation Scale (Suinn, Ahuna, & Koo, 1992), TAPS = Thoughts about Psychotherapy Survey (Kushner & Sher, 1989), and ATSPPHS = Attitudes Toward Seeking Professional Psychological Help Scale (Fischer & Farina, 1995).

Table 4. Experimental groups' endorsement of help-seeking behaviors after experimental manipulation.

|                                       | Standard |           |              | Practical |           |              | Cultural |           |              |
|---------------------------------------|----------|-----------|--------------|-----------|-----------|--------------|----------|-----------|--------------|
|                                       | <i>M</i> | <i>SD</i> | <i>Range</i> | <i>M</i>  | <i>SD</i> | <i>Range</i> | <i>M</i> | <i>SD</i> | <i>Range</i> |
| Close-Ended Solutions (#4, Counselor) | 2.74     | 1.56      | 1-7          | 3.20      | 1.82      | 1-6          | 3.46     | 1.68      | 1-7          |
|                                       | <i>N</i> |           | <i>%</i>     | <i>N</i>  |           | <i>%</i>     | <i>N</i> |           | <i>%</i>     |
| Open-Ended Solution (Counselor)       | Yes = 9  |           | 32.1%        | Yes = 12  |           | 75%          | Yes = 28 |           | 73.7%        |
|                                       | No = 19  |           | 67.9%        | No = 3    |           | 18.8%        | No = 10  |           | 26.3%        |

Note: For the analysis of the open-ended responses from the experimental vignettes, we created a dichotomous variable for intention to seek counseling. Each participant generated up to three solutions for their respective vignette. Coders looked at all responses generated, and if any of the three solutions included seeking a counselor, that participant was coded overall as “yes,” intending to seek a counselor. If none of the participant’s three responses included seeking a counselor or therapist, then the participant was coded overall as “no,” not intending to seek a counselor.

variables and pre-manipulation dependent variables. For the MEIM, AVS-R, SL-ASIA, TAPS, and ATSPPHS, there were no significant group differences ( $p > .10$ ). Importantly, this suggests that although cell sizes were unequal, the groups did not vary significantly on variables.

Next, the relations between the MEIM, AVS-R, SL-ASIA, TAPS, and ATSPPHS measures were examined (see Table 5). These measures were administered before participants were randomized into three experimental groups. The SL-ASIA was significantly correlated with the MEIM ( $r = -.30$ ) and TAPS ( $r = -.38$ ). This finding is consistent with literature and suggests that as acculturation to Western culture increased, Chinese ethnic identity and concerns about psychotherapy decreased. The AVS-R was significantly correlated with the ATSPPHS ( $r = -.34$ ), such that as adherence to Asian values increased, attitudes towards therapy became more negative, also consistent with literature.

### **RQ 1: Investigation of Personal and Cultural Influences on Attitudes**

Hierarchical regression analyses were employed to investigate the first research question which addressed the relative impact of personal and cultural influences on attitudes towards mental health treatment for depression. Two steps of predictors were included in the analyses. The personal characteristics included demographics (i.e., age, sex, immigration-related generation). The cultural characteristics included ethnic identity, acculturation, and Asian values. Separate analyses were conducted to examine predictors of two attitudinal measures, the Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS) (Fischer & Farina, 1995) and the Thoughts About Psychotherapy Scale (TAPS) (Kushner & Sher, 1989).

Table 5. Correlational relations between independent and dependent measures.

|         | AVS-R | SL-ASIA | TAPS   | ATSPPHS |
|---------|-------|---------|--------|---------|
| MEIM    | .20   | -.30*   | .20    | -.10    |
| AVS-R   | —     | -.25    | .12    | -.34**  |
| SL-ASIA |       | —       | -.38** | .04     |
| TAPS    |       |         | —      | .04     |

Note: MEIM = Multigroup Ethnic Identity Measure (Phinney, 1992), AVS-R = Asian Values Scale–Revised (Kim & Hong, 2004), SL-ASIA = The Suinn-Lew Asian Self Identity Acculturation Scale (Suinn, Ahuna, & Koo, 1992), TAPS = Thoughts about Psychotherapy Survey (Kushner & Sher, 1989), and ATSPPHS = Attitudes Toward Seeking Professional Psychological Help Scale (Fischer & Farina, 1995).

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

The researcher decided on the order of entering the blocks of predictors for the hierarchical regression analyses. The personal variables were entered as the first block of predictors in order to determine the amount of variance of the outcome variable explained by these factors. The cultural variables were entered as the second block in order to assess for the amount of outcome variance that they explained after taking into account the effects of the personal variables. Analyses were conducted using SPSS version 16.0 and an alpha level of .05. Summaries of the regression results are presented in Tables 6 and 7.

The first hierarchical regression analyzed the influence of the two blocks of predictors on the Thoughts About Psychotherapy (TAPS) survey (see Table 6). The first block of predictors was not significant in accounting for a significant amount of explained variance in the TAPS. However, the second block of predictors did explain a significant amount of the explained variance. Within this block of predictors only acculturation was significant in explaining variance in the TAPS ( $p = .009$ ). The findings indicated that individuals reporting lower levels of Western acculturation reported increased concerns about psychotherapy. Likewise, individuals reporting higher levels of Western acculturation reported having less concerns about psychotherapy.

The second hierarchical regression analysis analyzed the influence of the two blocks of predictors on the Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS; see Table 7) Both Steps 1 and 2 significantly added to the predictive utility of the model. Within the first block of predictors, age ( $p = .001$ ) was a significant predictor. Within the second block of predictors, ethnic identity ( $p = .035$ ) was significant in predicting the variance in the ATSPPHS. The directionality of this finding

Table 6. Hierarchical regression analysis examining personal and cultural variables' influence on Thoughts about Psychotherapy Survey.

| Model |                    | Unstandardized Coefficients |            | Standardized Coefficients | Model Summary and Change Statistics |       |                |                     |                       |        |             |
|-------|--------------------|-----------------------------|------------|---------------------------|-------------------------------------|-------|----------------|---------------------|-----------------------|--------|-------------|
|       |                    | $\beta$                     | Std. Error | Beta                      | t                                   | p     | R <sup>2</sup> | Adj. R <sup>2</sup> | St. Error of Estimate | F Chg. | Sig. F Chg. |
| 1     | (Constant)         | 64.75                       | 25.62      |                           | 2.53                                | .02   | .02            | -.07                | 19.81                 | .26    | .90         |
|       | Sex                | 1.58                        | 6.20       | .04                       | .26                                 | .80   |                |                     |                       |        |             |
|       | Age                | -.67                        | .80        | -.14                      | -.83                                | .41   |                |                     |                       |        |             |
|       | Generation         | -.82                        | 5.92       | -.02                      | -.14                                | .89   |                |                     |                       |        |             |
|       | Experimental Group | 2.06                        | 3.38       | .10                       | .61                                 | .55   |                |                     |                       |        |             |
|       |                    |                             |            |                           |                                     |       |                |                     |                       |        |             |
| 2     | (Constant)         | 68.70                       | 51.97      |                           | 1.32                                | .19   | .22            | .09                 | 18.32                 | 3.48*  | .02*        |
|       | Sex                | 7.04                        | 6.05       | .17                       | 1.17                                | .25   |                |                     |                       |        |             |
|       | Age                | .17                         | .82        | .03                       | .20                                 | .84   |                |                     |                       |        |             |
|       | Generation         | 8.90                        | 6.46       | .23                       | 1.38                                | .18   |                |                     |                       |        |             |
|       | Experimental Group | 1.16                        | 3.19       | .05                       | .36                                 | .72   |                |                     |                       |        |             |
|       | Ethnic Identity    | 1.56                        | 5.48       | .05                       | .28                                 | .78   |                |                     |                       |        |             |
|       | Asian Values       | 4.93                        | 12.31      | .06                       | .40                                 | .69   |                |                     |                       |        |             |
|       | Acculturation      | -21.20                      | 7.75       | -.49                      | -2.74                               | .01** |                |                     |                       |        |             |

Note: \*  $p < .05$ . \*\*  $p < .01$ .

Table 7. Hierarchical regression analysis examining personal and cultural variables' influence on Attitudes Toward Seeking Professional Psychological Help Scale.

| Model |                    | Unstandardized Coefficients |            | Standardized Coefficients | Model Summary and Change Statistics |        |                |                     |                       |        |             |
|-------|--------------------|-----------------------------|------------|---------------------------|-------------------------------------|--------|----------------|---------------------|-----------------------|--------|-------------|
|       |                    | $\beta$                     | Std. Error | Beta                      | t                                   | p      | R <sup>2</sup> | Adj. R <sup>2</sup> | St. Error of Estimate | F Chg. | Sig. F Chg. |
| 1     | (Constant)         | 3.34                        | 6.69       |                           | .50                                 | .62    | .27            | .20                 | 5.23                  | 4.08   | .01*        |
|       | Sex                | 3.30                        | 1.63       | .27                       | 2.02                                | .05*   |                |                     |                       |        |             |
|       | Age                | .65                         | .21        | .44                       | 3.15                                | .003** |                |                     |                       |        |             |
|       | Generation         | .62                         | 1.55       | .05                       | .40                                 | .69    |                |                     |                       |        |             |
|       | Experimental Group | .86                         | .86        | .13                       | .10                                 | .32    |                |                     |                       |        |             |
| 2     | (Constant)         | 6.08                        | 13.70      |                           | .44                                 | .66    | .38            | .28                 | 4.96                  | 2.62   | .06         |
|       | Sex                | 3.10                        | 1.65       | .25                       | 1.88                                | .07    |                |                     |                       |        |             |
|       | Age                | .75                         | .21        | .50                       | 3.51                                | .001** |                |                     |                       |        |             |
|       | Generation         | .74                         | 1.72       | .06                       | .43                                 | .67    |                |                     |                       |        |             |
|       | Experimental Group | 1.06                        | .84        | .16                       | 1.26                                | .22    |                |                     |                       |        |             |
|       | Ethnic Identity    | 3.31                        | 1.52       | .32                       | 2.18                                | .04*   |                |                     |                       |        |             |
|       | Asian Values       | -6.07                       | 3.23       | -.25                      | -1.88                               | .07    |                |                     |                       |        |             |
|       | Acculturation      | -.58                        | 2.08       | -.04                      | -.28                                | .78    |                |                     |                       |        |             |

Note: \*  $p < .05$ . \*\*  $p < .01$ .



was inconsistent with the study hypothesis, that higher Chinese ethnic identity should be associated with more negative attitudes towards treatment. In fact, these results show that having higher ethnic identity correlated with having more positive attitudes towards treatment. This finding suggests that perhaps there are more dimensions to ethnic identity that must be examined to fully understand how it affects one's attitudes towards seeking therapy. Furthermore, sex ( $p = .067$ ) and Asian values ( $p = .068$ ) were approaching significance in predicting the variance in the ATSPPHS. These results, on the other hand, were consistent in directionality with the study hypothesis. Tentatively, these findings suggest that being a female and endorsing more adherence to Asian values may negatively affect attitudes towards psychotherapy. However, the interpretation of the sex effect trend was difficult and may be inaccurate because the majority of the study sample was female.

## **RQ 2: Examining Experimental Group Differences in Intended Help-Seeking Behavior**

Separate analyses were conducted to examine two dependent variables assessing intended help-seeking behaviors: (a) a close-ended question which assessed likelihood of seeking help from a mental health counselor on a 7-point Likert scale (see Survey Monkey, Question #110, item #4) and (b) an open-ended question which was coded based on whether or not the individual explicitly stated in one or more of their three responses that they would go see a counselor (see Survey Monkey, Questions #104, #106, or #108). Table 4 shows the distribution of the open and closed ended responses across groups. Although we asked for three responses from each participant, the number and type of responses given varied across participants and across groups.

First an analysis of variance (ANOVA) test was employed to investigate the perceptions of barriers to treatment as related to help-seeking intentions. In addition to barrier influence, the impact of experimental group, sex, and ethnic identity were taken into account. The researcher chose to examine the interaction between experimental group and ethnic identity level for research question #2. The other independent variables from the first research question (acculturation and Asian values) were not examined in interaction with experimental group on the outcome variable. The researcher was most interested in ethnic identity level because of the pertinence it has to clinical practice. A clinician who works with minority clientele will often encounter clients who are struggling with their inner sense of belonging to a number of cultures. This sense of belonging may not necessarily be related to one's biological ethnicity, and can be difficult to define and accept. The researcher was more interested in the inner conflict and reasoning for one's sense of belonging, for this specific study, rather than one's outward actions and behaviors of adhering to a specific culture.

To address this question, Table 8 shows the 3 (Experimental Group: standard, practical barriers, cultural barriers) x 2 (Ethnic Identity: low attitude, high attitude) ANOVA that was conducted to examine potential group differences in help-seeking behaviors. The variable for ethnic identity was transformed into a dichotomous variable by finding the median score, and recoding the values above the median as "high ethnic identity" and values below the median as "low ethnic identity." Main effects of experimental group were examined to look at the differences in mental health treatment endorsement. Exploratory analyses were planned to examine the potential main effects and interactions related to sex and ethnic identity. Due to the unequal number of males

Table 8. Analysis of variance test examining likelihood of seeking counseling as related to experimental group and ethnic identity.

| Source                         | <i>Type III<br/>Sum of<br/>Squares</i> | <i>df</i> | Mean<br>Square | F      | <i>p</i> | Partial Eta<br>Squared |
|--------------------------------|--|-----------|----------------|--------|----------|------------------------|
| Corrected<br>Model             | 29.13                                  | 5         | 5.83           | 2.32   | .052     | .14                    |
| Intercept                      | 611.52                                 | 1         | 611.52         | 243.71 | .00      | .78                    |
| Experimental<br>Group          | 6.22                                   | 2         | 3.12           | 1.24   | .30      | .03                    |
| Ethnic Identity                | 3.84                                   | 1         | 3.84           | 1.53   | .22      | .02                    |
| Exp. Grp. x<br>Ethnic Identity | 15.53                                  | 2         | 7.76           | 3.09   | .05*     | .08                    |
| Error                          | 175.65                                 | 70        | 2.51           |        |          |                        |
| Total                          | 969.00                                 | 76        |                |        |          |                        |
| Corrected<br>Total             | 204.78                                 | 75        |                |        |          |                        |

Note: Dependent variable = likelihood of seeking counseling as assessed on a 7-point Likert scale.

\*  $p \leq .05$ .

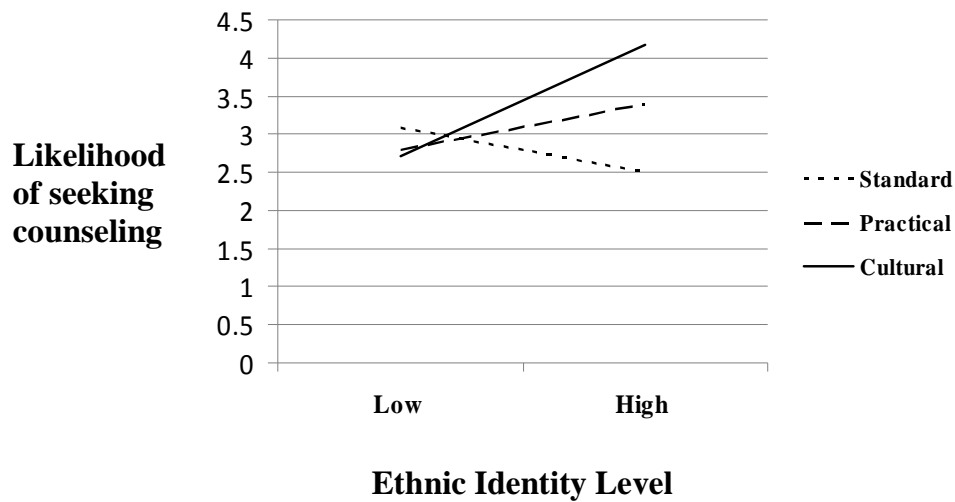
and females within the experimental groups, the researcher decided it was more prudent to use the results from the ANOVA which did not include sex. However, an analogous ANOVA was conducted which included sex and the same results were found.

Results of the ANOVA examining the question about likelihood to seek mental health counseling on the closed-ended measure (see Survey Monkey, Question #110, item #4) revealed that there was an experimental group x ethnic identity interaction ( $F = 3.09$ ,  $p = .052$ ). This finding suggests that endorsement and/or intention of seeking mental health treatment varied based on one's level of ethnic identity and experimental group (see Figure 6). Least squared differences were examined, as well. For participants endorsing a high ethnic identity level, the standard and cultural group means differed significantly ( $p = .004$ ), in that the cultural group rated their likelihood of seeking out a mental health professional significantly higher than individuals with no barrier alleviations (see Table 9).

Lastly, a logistic regression was conducted on the influence of experimental group and ethnic identity level on whether individuals indicated (in their open-ended responses) that they would seek help from a counselor (see Table 10). The researcher used dummy coding in the logistic regression in order to examine the differences between the practical and cultural group, as compared to the standard group. The Wald statistic was significant (Wald = 4.08,  $p = .04$ ) indicating that experimental group and ethnic identity level made a significant contribution to whether or not the participant intended to seek counseling, based on their given vignette situation. Whether the individual received the practical vignette (Wald = 6.88,  $p = .009$ ) or the cultural vignette (Wald = 10.47,  $p = .001$ ) was significant in predicting

the participant's help-seeking intentions, as compared to the standard group, which had no barrier alleviations.

Figure 6. ANOVA interaction between experimental group and ethnic identity level.



Note: Dependent variable = closed-ended measure, likelihood of seeking mental health counseling on 7-point Likert scale (1-Not likely at all; 7-Very likely) (see Survey Monkey, Question #110, item 4)

Table 9. Post-hoc tests examining simple effects between experimental group means of likelihood of seeking counseling as related to ethnic identity.

| Ethnic Identity      |           |           | Mean Difference | Std. Error | Sig.   |
|----------------------|-----------|-----------|-----------------|------------|--------|
| Low Ethnic Identity  | Standard  | Practical | .28             | .84        | .74    |
|                      |           | Cultural  | .38             | .60        | .53    |
|                      | Practical | Cultural  | .09             | .81        | .91    |
| High Ethnic Identity | Standard  | Practical | -.90            | .66        | .17    |
|                      |           | Cultural  | -1.67           | .56        | .004** |
|                      | Practical | Cultural  | -.77            | .63        | .22    |

Note: Dependent variable = likelihood of seeking counseling as assessed on a 7-point Likert scale. \*  $p < .05$ . \*\*  $p < .01$ .

Table 10. Logistic regression analysis examining the influence of experimental group and ethnic identity level on whether individuals indicated (in their open-ended responses) that they would seek help from a counselor.

|        |           | $\beta$ | S.E. | Wald  | df | Sig.    | Exp( $\beta$ ) |
|--------|-----------|---------|------|-------|----|---------|----------------|
| Step 0 | Constant  | .47     | .23  | 4.08  | 1  | .04     | 1.60           |
| Step 1 | Practical | 2.03    | .77  | 6.88  | 1  | .009**  | 7.61           |
|        | Cultural  | 1.87    | .58  | 10.47 | 1  | .001*** | 6.48           |
|        | Ethnic    | .77     | .53  | 2.12  | 1  | .15     | 2.16           |
|        | Identity  |         |      |       |    |         |                |

Note: For the analysis of the open-ended responses from the experimental vignettes, we created a dichotomous variable for intention to seek counseling. Each participant generated up to three solutions for their respective vignette. Coders looked at all responses generated, and if any of the three solutions included seeking a counselor, that participant was coded overall as “yes,” intending to seek a counselor. If none of the participant’s three responses included seeking a counselor or therapist, then the participant was coded overall as “no,” not intending to seek a counselor.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\* $p < .00$



## **DISCUSSION**

This study examined personal and cultural factors hypothesized to influence perception and salience of barriers to mental health treatment, and in turn, help-seeking intentions. Previous studies indicate that cultural barriers can be as salient as practical barriers, thus the design of this experimental study was to identify both personal and cultural factors that can influence attitudes and potential barriers to help-seeking behaviors among young adult Chinese Americans. Our goal was to improve understanding of potential methods by which to alleviate practical and cultural barriers to seeking treatment perceived among young Chinese Americans.

### **RQ #1: Discussion of Personal and Cultural Influences on Attitudes Towards Mental Health Treatment**

The results of the first research question—the influence of personal and cultural characteristics on attitudes towards mental health treatment—indicated that various facets of culture differentially affect attitudes towards seeking treatment. Results of the first hierarchical regression revealed that acculturation level predicted significant variance on the Thoughts about Psychotherapy Survey (TAPS; Kushner & Sher, 1989) measure. Lower Western acculturation (or higher Chinese culture adherence) was related to greater concerns about therapist responsiveness, image, and coercion within therapy. This finding supports prior research demonstrating that Asian cultures tend to value saving face, family honor, and avoiding socially shameful acts, since seeking therapy is a stigmatized activity in society today (Costigan & Dokis, 2006a). Likewise, higher Western acculturation levels were associated with fewer concerns about psychotherapy.

Results of the second hierarchical regression indicated that age, sex, ethnic identity, and Asian values explained a significant portion of the variance on the second measure of help-seeking intentions, Attitudes Towards Seeking Professional Psychological Help Scale (ATSPPHS; Fishcher & Farina, 1995). These results provided mixed findings. These results revealed that higher ethnic identity was associated with more positive attitudes towards treatment, which is inconsistent with the study hypothesis that having higher Chinese ethnic identity should mean that the individual had more negative connotations of treatment (i.e. stigma, shame). Therefore, these results indicate that there are possibly more facets of ethnic identity than are covered by the measure used in this study, and that more research needs to be done to examine the complex areas of ethnic identity and how they affect attitudes towards seeking treatment. In the same regression, results also indicated the being female and having more adherence and endorsement of Asian values correlated with poorer attitudes towards seeking mental health treatment. This finding is congruent with previous findings, in that Asian values tend value keeping issues within the family and saving face. However, the sex effect is difficult to explain because the study sample was primarily female.

Overall, the most important aspect of these findings is that different measures of culture were associated with different measures of attitudes towards seeking mental health treatment. These findings suggest that attitudes toward mental health seeking are multidimensional and that multiple measures of culture and attitudes are necessary when examining the relationship and association between these two constructs.

## **RQ #2: Discussion of Experimental Group Differences on Intended Help-Seeking Behaviors**

The second research aim was to examine whether alleviation of cultural and practical barriers would result in increased endorsement of professional mental health help-seeking behavior. Results of the second research question—whether there were experimental group differences in intention to seek help—revealed an interaction between experimental group and ethnic identity level. These results are consistent with the hypotheses of this study, in that groups with either practical or cultural barriers alleviated reported that they would be more likely to seek mental health counseling for their vignette situation. Persons receiving the standard vignette, in which no barriers were alleviated, were less likely to report that they would seek mental health counseling.

Moreover, in the cultural group, individuals with higher ethnic identity were significantly more likely to seek counseling, suggesting that if one was high on ethnic identity, the alleviation of cultural barriers strongly influenced their intention to seek counseling. Thus, the manipulation of the cultural vignette (“There is a Chinese counselor who speaks both Chinese and English. The counselor specializes in working with Chinese and Chinese American clients. This counselor is also familiar with holistic treatments, as well as more traditional talk therapy”) helped make counseling a more accessible and attractive option to individuals who strongly identify as Chinese or Chinese American.

The researcher decided to measure the participants’ likeliness of seeking counseling with both open and closed-ended measures to gain a more complete sense of the solutions and factors influencing intended mental health help-seeking behaviors. The

open-ended measures allowed participants to generate up to three solutions to the mental health vignette. The closed-ended measure asked participants to rank the likelihood that they would seek help from various sources (i.e. family, friends, mental health counselor, physician, religious leader), as well as to rank how important certain factors were in seeking mental health treatment (i.e. transportation, location, language, medication). Participants were asked to create their own open-ended solutions before answering the closed-ended measures so they would not be primed to think about help-seeking behaviors and therapy.

### **Clinical Implications**

Findings of the current study can help inform clinical work with the Chinese/Chinese American population of young adults in the United States. The results of the first research question demonstrate the importance of examining culture on many different dimensions. Culture does not simple consist of one's biological ethnicity, but also one's ethnic identity and sense of belonging to culture(s), one's adherence and support of cultural values, and one's acculturation level. These dimensions of culture map onto attitudes about psychotherapy in different ways, as illustrated by the differential correlational combinations of specific cultural and attitudinal measures. Clinicians must keep in mind that perceptions of psychotherapy range from concerns about the techniques and approaches of the actual therapist, as well as individual and social perceptions of the individual if they seek counseling. Thus, when trying to gain clientele for a clinical practice, clinicians must highlight multiple dimensions of therapy to appeal to the various concerns and fears of potential clients.

The results of the second research question highlight the importance of alleviating barriers when trying to appeal to clientele, as well as the importance of ethnic identity level

among Chinese Americans dealing with mental health issues. Both groups with practical or cultural barriers alleviated in the vignettes reported that they were more likely to seek mental health counseling. This report was based on the close-ended measure, given *after* the open-ended solution as to refrain from imprinting or influencing participants' responses. The standard group, from whom no barriers were alleviated, was less likely to report that they would seek professional counseling. Clinically, this shows that the information used to gain clientele can absolutely make a difference in whether or not the client(s) decides to seek treatment at a specific organization, agency, or clinic. In this study, a simple alleviation of a few practical or cultural barriers made a significant difference in an individual's intended help-seeking behavior. Furthermore, the alleviation of cultural barriers had an impact on those individuals high on ethnic identity. Because Asian American are a hard to reach population that underutilize mental health treatment even when necessary, it is imperative to explicitly address these cultural concerns and alleviate them in order to provide them the necessary services.

### **Future Research**

The current study sheds light on future research. For one, the current study focuses solely on Chinese Americans. Data was collected from individuals of multiple Asian subgroups, but aggregation of this data was not analyzed in order to avoid overgeneralizations about Asian Americans as a whole. Moreover, ample research has shown that there are many differences between ethnic subgroups in Asian American cultures and that it is imperative to examine one group at a time. Therefore, further

research is needed to examine other Asian American subgroups (e.g., Japanese Americans, Korean Americans) to accurately identify differences, as well as similarities, between these broad groups falling within the category of Asian American.

This study focused on how ethnic identity, values, and acculturation levels of Chinese Americans influence attitudes towards mental health treatment and possible barriers to seeking professional help. However, there are other significant factors to consider when studying the mental health experiences and treatments of Asian Americans and the specific subgroups. These may include: geographic location (e.g., rural vs. urban locations), severity of mental and physical illnesses, age and cohort effects (e.g., youth, elderly), gender, economic status, perceived racism and discrimination, social support, and other internal and external resources.

One study by Wickrama, Elder, and Abraham (2007) examined the effects of rural status and ethnicity on physical illness in Latino youth. Although this study focused primarily on Latino youth, the findings suggested that White and African American adolescents had lower risks for chronic illness compared to Asian, Latino, or Native American youth (Wickrama, Elder, & Abraham, 2007). These findings highlight the importance of investigating the prevalence and treatment of physical and mental illness, in the Asian American population, with special regard to geographical location. Another longitudinal study by Wickrama, Beiser, & Kaspar (2002) found that English language skills, gender, and age all affected levels of economic integration and depression in Southeast Asian refugees. This highlights the importance of examining the complex relationships between biological, social, economical, and contextual factors when studying the experience of Asian American subgroups. Lastly, perceived racism and discrimination are also important issues to consider

when working with Asian Americans and specific subgroups. Noh, Beiser, Kaspar, Hou, and Rummens (1999) examined perceived racial discrimination, depression, and coping styles in Southeast Asian refugees and found that there was a significant moderating effect of forbearance. Specifically, this study found that forbearance effects were also influenced by ethnic identity level, but that the forbearance had more beneficial effects than strong ethnic identification (Noh, Beiser, Kaspar, Hou, and Rummens, 1999). Thus, other variables related to ethnicity (i.e. forbearance), besides ethnic identity, acculturation, and Asian values, must also be examined when researching this population.

There has also been a wealth of research on the relationships between culture and social support. Kim, Sherman, & Taylor (2008) reviewed the different modes of social support and how they might be expressed in Asian culture. These researchers postulated that Asian Americans are less likely to explicitly ask for help from close others, compared to European Americans, and that support in Asian cultures actually may not involve this kind of personal disclosure of distress to others (Kim, Sherman, & Taylor, 2008). This relates to the Asian values of interdependence and maintaining interpersonal harmony over one's individual needs and desires. Therefore, further research should examine the specific relationship between Asian values and presentations and expressions of social support, and consequent effects on mental health.

### **Strengths and Limitations**

Finally, there are multiple strengths and limitations to this study. Some limitations pertain to the smaller sample size and missing data. Some of this missing data are from participants who did not agree to the informed consent agreement, those who did not

fulfill all three screening criteria (i.e., Chinese or Chinese American, 18-30 years old, ability to take survey in English), those who did not answer the accuracy check question accurately, or failure to answer selected questions. Other limitations include participants that dropped out of the survey in the middle, which may have to do with the length and time it took to complete the survey. Third, the randomization process for the experimental manipulation component of the survey did not produce three groups of equal sizes. Colors (i.e., Red, Yellow, and Blue) were chosen as choices for the participants to select in hopes that colors were a neutral option. However, the majority of the participants chose the color Blue, which shows that perhaps another manner of randomization may have been less biased and would distribute participants in a more equal fashion. Lastly, there was more qualitative data collected than analyzed. Participants were instructed to create up to three solutions according to their help-seeking intentions for the vignettes. Further analysis can be done on the other solutions that appeared, instead of focusing on only the option of seeking professional counseling.

However, there are multiple strengths to the study, as well. A strength of this study is the use of multiple methods to assess perceived barriers to treatment as well as intent to seek treatment. We utilized various quantitative methods of measuring cultural identification and attitudes towards psychological treatment. We also used qualitative methods of measuring participants' responses to hypothetical mental health related vignettes. The unique use of vignettes in this study allows participants to create their own personal solutions, while allowing the researcher to examine the various methods of dealing with situations needing mental health treatment. Participants' solutions were also measured quantitatively to provide a more complete description of their responses to the vignettes. This information about



treatment barriers and solutions is useful in a clinical setting, where interventions regarding these practical and cultural barriers can be appropriately tailored to specific cultures.

Another strength of this study is the focus on Chinese Americans as one subgroup of the Asian American population. Previous studies have aggregated data from many ethnicities together, rendering between group differences invisible. By examining only Chinese Americans, we can understand the identities and attitudes of this ethnic group in a more in-depth manner. We also examined multiple levels of cultural identification—ethnic identity, Asian values, and acculturation—in order to illustrate and present a more comprehensive view of the complexity of dimensions in the aspect of culture. Likewise, we also explored multiple dimensions of beliefs about psychological treatment.

### **Conclusions**

Current research indicates that Asian Americans as a whole underutilize mental health treatment services. When considering Asian Americans, disaggregation of data regarding ethnic subgroups is important to investigate potential within and between group differences. This study explored selected personal and cultural factors hypothesized to influence attitudes towards psychotherapy among Chinese Americans. This study also utilized mixed qualitative and quantitative methods with an experimental manipulation to explore the effectiveness of alleviating practical and cultural barriers in seeking counseling. Results of this study highlighted the varied dimensions of culture (i.e., ethnic identity, acculturation, Asian values) that were significantly related to different components of participants' attitudes toward seeking treatment. Results of the experimental manipulation revealed an increased tendency to endorse seeking professional mental health treatment

when practical or cultural barriers were alleviated. A significant interaction was found in that individuals with high ethnic identity levels who also had cultural barriers alleviated, reported that they were more likely to seek psychological counseling as compared to those with practical barriers or no barriers alleviated. These findings highlight the importance of the manner in which information about psychological treatment is presented to difficult-to-reach populations. Clinical implications include the importance of therapists' awareness of the barriers to seeking mental health treatment, clients' perceptions of counseling, and how clinicians can make psychotherapy a more attractive option to minority populations.

**APPENDIX A****Mental Health Vignettes**

(adapted from Griffiths, Nakane, Christensen, Yoshioka, Jorm, & Nakane, 2006)

*(1) Standard*

You have been feeling unusually sad and miserable for the last few weeks. Even though you are tired all the time, you have trouble sleeping nearly every night. You don't feel like eating and have lost weight. You can't keep your mind on your work and you put off making decisions. Even day-to-day tasks seem too much for you. You begin to consider possible options.

*(2) Practical Barriers Addressed*

You have been feeling unusually sad and miserable for the last few weeks. Even though you are tired all the time, you have trouble sleeping nearly every night. You don't feel like eating and have lost weight. You can't keep your mind on your work and you put off making decisions. Even day-to-day tasks seem too much for you. You begin to consider possible options. You find out that there is a counseling center near to you, and that there is a bus route that stops directly in front of it. The cost is low, and your insurance will cover any extra expenses. There are available appointments in the next few days.

*(3) Cultural Barriers Addressed*

You have been feeling unusually sad and miserable for the last few weeks. Even though you are tired all the time, you have trouble sleeping nearly every night. You don't feel like eating and have lost weight. You have been getting headaches and feeling dizzy, and your muscles are aching. You can't keep your mind on your work and you put off making decisions. Even day-to-day tasks seem too much for you. You begin to consider possible options. There is a Chinese counselor who speaks both Chinese and English. The counselor specializes in working with Chinese and Chinese American clients. This counselor is also familiar with holistic treatments, as well as more traditional talk therapy.

## APPENDIX B

### Open-Ended Response Codebook

The participants were randomly given one of the three hypothetical vignettes. After the vignette, participants were given these instructions: “After you imagine how you would approach the problem, write down your top three solutions to the problem. Please list each separate solution on a separate line. If you cannot think of a solution to the problem, please write "none" so that we know you attempted to answer the question. Please note that there are no "right" and "wrong" answers. Please type your response below.” Participants’ responses were examined for the keywords below, and coded by two coders according to those keywords and similar responses.

| <b>VARIABLE NAME</b> | <b>KEYWORDS</b>   |
|----------------------|---|
| FAMILY               | parents, mother, father, stepparents, siblings, brother, sister, extended family, cousins, grandparents |
| FRIENDS              | friends, best friend, close friend, co-workers  |
| SIGOTHER             | significant other, boyfriend, girlfriend, partner   |
| YOURSELF             | think through it myself, self-reflection, think about it on my own                                      |
| COUNSELOR            | counselor, therapist, psychologist, psychiatrist  |
| DOCTOR               | doctor, physician   |
| BOSS                 | talk to boss  |
| PASTOR               | pastor, spiritual leader, priest, church leader   |
| PRAY                 | pray about it   |
| IGNORE               | ignore it, forget about it  |
| EXERCISE             | exercise, physical activity   |
| SLEEP                | sleep on it, take a nap   |
| SUBSTANCE USE        | substance use, drink, smoke, eat  |
| WAIT                 | wait and see  |
| OTHER                | other   |
| UNCODEABLE           | any qualifiers, last resort code  |
| MISSING              | no response, missing response   |

## APPENDIX C

### Open-Ended Coding Instructions

- Code each response according to the excel codebook.
  - Use the keywords to help determine which code is most appropriate.
- Each participant should have 3 responses (RedRespCD1A, RedRespCD2A, RedRespCD3A). Each of these responses could have one or more parts (RedRespCD1A, 1B, 1C, 1D).
  - Example of a 1 part response: “Talk to my friends.” This response has only one part, so RedRespCD1A is “FRIENDS”
  - Example of a 2 part response: “Talk to my friends and family” is one response with two parts, so RedRespCD1A is “FRIENDS” and RedRespCD1B is “FAMILY”
  - Same with responses containing 3 or 4 parts (Use RedRespCD1A, 1B, 1C, 1D accordingly)
  - In your excel file, separate each part with a slash mark. Example: “Talk to my friends / and family”
- Sometimes participants have added qualifiers. In this case, these are counted as “UNCODEABLE”.
  - Example: “Why am I assumed to be depressed? I would talk it out with my family.” First, you would add a slash mark to separate the two parts (“Why am I assumed to be depressed? / I would talk it out with my family.”) The first part of this response is a qualifier, and would be coded as “UNCODEABLE”. The second part would be coded as “FAMILY”

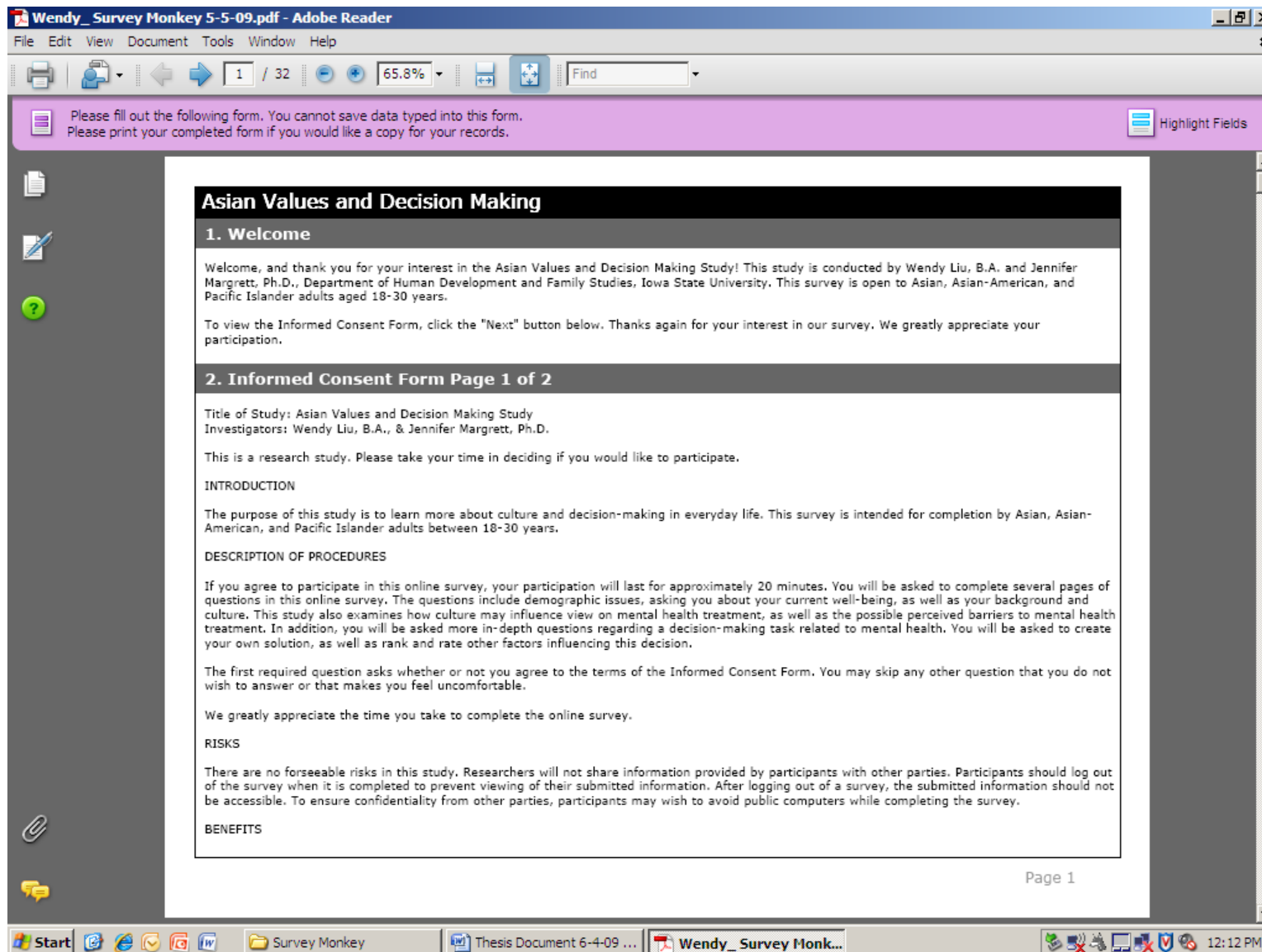
- “OTHER” AND “UNCODEABLE” are the last resorts. Try to find another code that the response fits in before using these.
- “MISSING” is used for missing responses.

## APPENDIX D

### Survey Monkey Questionnaire

| <b>Question(s) #</b> | <b>Measure</b>   |
|----------------------|--|
| 1-2                  | Informed Consent   |
| 3-5                  | Screening Questions  |
| 6-22                 | Demographics   |
| 23                   | Accuracy Check   |
| 24-39                | Multigroup Ethnic Identity Measure (MEIM)                                |
| 40-64                | Asian Values Scale- Revised (AVS-R)                                      |
| 65-90                | Suinn-Lew Acculturation Scale- Asia (SL-ASIA)                            |
| 91-100               | Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS) |
| 101-102              | Thoughts About Psychotherapy Survey (TAPS)                               |
| 103                  | Experimental Manipulation  |
| 104-108              | Vignettes and Open-Ended Responses                                       |
| 109                  | Accuracy Check   |
| 110-111              | Closed-Ended Decision Making Solutions and Factors                       |
| 112                  | Suggestions  |





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Please fill out the following form. You cannot save data typed into this form.  
Please print your completed form if you would like a copy for your records.

Highlight Fields

### Asian Values and Decision Making

If you decide to participate in this study there will be no direct benefit to you. It is hoped that the information gained in this study will advance knowledge of culture and the influence on individual decision making processes in various situations. This information will better enable researchers and clinicians to consider the roles of culture and decision making in everyday functioning.

#### COSTS AND COMPENSATION

There is no cost to participate in this study. There will be a drawing at the completion of this study for a \$20 gift certificate.

**\*\*Please remember to print off this page if you would like a copy for your records.**

### 3. Informed Consent Form Page 2 of 2

#### PARTICIPANT RIGHTS

Your participation in this study is completely voluntary and you may refuse to participate or leave the survey at any time.

#### CONFIDENTIALITY

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

To ensure confidentiality to the extent permitted by law, the following measures will be taken. Subjects will create a unique code and this code will be used on the survey instead of their name. Only trained, authorized study personnel will have access to the data collected in this study. Any actual hard copies of data will be kept in a locked data room. Data on the computer will be kept in a password protected computer. It is anticipated that any hard copies of the data will be kept for five years and that computerized data (without identifiers) will be kept indefinitely. If the results are published, your identity will remain confidential.

#### QUESTIONS OR PROBLEMS

•For further information about the study, please contact:

Wendy Liu, Iowa State University Department of Human Development and Family Studies, 1317 Palmer Building, Ames, IA 50011.  
or  
Jennifer Margrett, Iowa State University Department of Human Development and Family Studies, 4380 Palmer Building, Ames, IA 50011. In addition, you may contact Jennifer Margrett and her research associates via e-mail (everydaylife@iastate.edu) or telephone (515-294-4380).

•If you have any questions about the rights of research subjects, please contact the IRB Administrator, (515) 294-4566, jcs1959@iastate.edu, or Diane Ament, Director, Office of Research Assurances, (515) 294-3115, dament@iastate.edu.

For referrals and resources related to mental health, please visit:  
<http://www.nlm.nih.gov/medlineplus/mentalhealth.html>

Page 2

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Please fill out the following form. You cannot save data typed into this form.  
Please print your completed form if you would like a copy for your records.

Highlight Fields

### Asian Values and Decision Making

Thank you for your interest in the Asian Values and Decision Making Study. It is important that all participants of this study consent to the information presented. Without your consent we cannot let you continue this survey. If you do not agree with any of the information presented on pages 1 and 2 of the Informed Consent Form and choose not to participate, please click "no" below. By clicking "yes" you indicate agreement with the terms outlined on pages 1 and 2 of the Informed Consent Form. Thank you for your time.

\*\*Please remember to print off this page if you would like a copy for your records.

**\* 1. PARTICIPANT SIGNATURE**

Answering "yes" below indicates that: (1) you are aged 18 and older; (2) you voluntarily agree to participate in this study; (3) the study was explained clearly, you have had ample time to read the informed consent form and any questions you posed to the researchers have been satisfactorily answered; and (4) you will accurately represent yourself when responding to the questions.

☐ Yes ☐ No

**4. Are you sure?**

**2. Would you like to re-read the Informed Consent Form and continue to participate in this study?**

☐ Yes ☐ No

**5. Welcome Page 2**

**\* 3. Do you consider yourself Asian, Asian-American, and/or Pacific Islander?**

☐ Yes ☐ No

**6. Welcome Page 3**

Page 3

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Please fill out the following form. You cannot save data typed into this form.  
Please print your completed form if you would like a copy for your records.

Highlight Fields

### Asian Values and Decision Making

4. Are you aged 18-30 years old?

☐ Yes  
☐ No

7. Welcome Page 4

5. Can you complete this survey in English?

☐ Yes  
☐ No

8. Welcome Page 5

6. What country were you born in?

7. What country was your mother born in?

8. What country was your father born in?

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### Asian Values and Decision Making

9. We realize that ethnic categories can be limiting and our goal is to be inclusive and accurately represent Asians rather than looking at "Asian" as a single category. Would you like to share anything else that reflects how you ethnically and/or culturally identify yourself?

☐ Yes

☐ No

Please type your answer here.

9. Thank You

At this time, you have gotten to this page because you do not fit the criteria needed for this study or did not agree to the informed consent. Thank you for your time.

QUESTIONS OR PROBLEMS

•For further information about the study, please contact:

Wendy Liu, Iowa State University Department of Human Development and Family Studies, 1317 Palmer Building, Ames, IA 50011.  
or  
Jennifer Margrett, Iowa State University Department of Human Development and Family Studies, 4380 Palmer Building, Ames, IA 50011. In addition, you may contact Jennifer Margrett and her research associates via e-mail ([everydaylife@iastate.edu](mailto:everydaylife@iastate.edu)) or telephone (515-294-4380).

•If you have any questions about the rights of research subjects, please contact the IRB Administrator, (515) 294-4566, [jcs1959@iastate.edu](mailto:jcs1959@iastate.edu), or Diane Ament, Director, Office of Research Assurances, (515) 294-3115, [dament@iastate.edu](mailto:dament@iastate.edu).

### 10. Demographic Information Page 1 of 2

Next, we'll start with some basic demographic questions about you. This information will be used to describe the group of participating individuals as a whole.

10. What is your sex?

☐ Male ☐ Female

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### Asian Values and Decision Making

11. What is your birth year?

12. What is your birth month?

13. Please select the category below that best fits your current relationship status. Different descriptors are available in the scroll down menu below:

14. Are you currently a student?

☐ Yes

☐ No

15. If so, what is the highest level of education you have completed? Please choose only ONE, the very highest level you have completed.

Level/Year: Grade School Secondary and High School Trade, Business, or Technical School College Graduate School

### 11. Demographic Information Page 2 of 2

16. Compared to other people my age, I believe my physical health to be:

☐ Very Good ☐ Good ☐ Moderately Good ☐ Moderately Poor ☐ Poor ☐ Very Poor

17. Compared to other people my age, I believe my mental health to be:

☐ Very Good ☐ Good ☐ Moderately Good ☐ Moderately Poor ☐ Poor ☐ Very Poor

18. Compared to other people my age, I believe my life to be:

☐ Extremely Happy ☐ Very Happy ☐ Somewhat Happy ☐ Average ☐ Somewhat Unhappy ☐ Very Unhappy ☐ Extremely Unhappy

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### Asian Values and Decision Making

19. In what state or province do you reside?

20. If you were NOT born in the United States, at what age (years) did you move to the U.S.?

21. Which of the following best describes where you currently live?

- ☐ On a farm
- ☐ Rural area/open country (not a farm)
- ☐ Small town (less 2,500 population)
- ☐ Large town (2,500-10,000 population)
- ☐ Small city (more than 10,000 but less than 50,000)
- ☐ Large city or suburb of a large city (50,000 or more)
- ☐ Other (please specify)

22. It is often helpful for us to understand individual and family needs as related to household resources. How much financial difficulty do you have paying your bills? Would you say: (Choose one)

- ☐ A great deal of difficulty
- ☐ Some difficulty
- ☐ A little difficulty
- ☐ No difficulty
- ☐ Other (please specify)

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### Asian Values and Decision Making

23. To ensure accuracy for this survey, please click "Very Likely" for this question.

☐ Not Likely At All  
☐ Somewhat Likely  
☐ Very Likely

### 12. Culture

In this country, people come from many different countries and cultures, and there are many different words to describe backgrounds or ethnic groups that people come from. Some examples of the names of ethnic groups are Hispanic or Latino, Black or African American, Asian American, Chinese, Filipino, American Indian, Mexican American, Caucasian or White, Italian American, and many others. These questions are about your ethnicity or your ethnic group and how you feel about it or react to it.

Use the numbers below to indicate how much you agree or disagree with each statement.

24. Please fill in: In terms of ethnic group, I consider myself to be

25. I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs.

☐ 1- Strongly disagree  
☐ 2- Disagree  
☐ 3- Agree  
☐ 4- Strongly agree

26. I am active in organizations or social groups that include mostly members of my own ethnic group.

☐ 1- Strongly disagree  
☐ 2- Disagree  
☐ 3- Agree  
☐ 4- Strongly agree

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### Asian Values and Decision Making

**27. I have a clear sense of my ethnic background and what it means for me.**

☐ 1- Strongly disagree

☐ 2- Disagree

☐ 3- Agree

☐ 4- Strongly agree

**28. I think a lot about how my life will be affected by my ethnic group membership.**

☐ 1- Strongly disagree

☐ 2- Disagree

☐ 3- Agree

☐ 4- Strongly agree

**29. I am happy that I am a member of the group I belong to.**

☐ 1- Strongly disagree

☐ 2- Disagree

☐ 3- Agree

☐ 4- Strongly agree

**30. I have a strong sense of belonging to my own ethnic group.**

☐ 1- Strongly disagree

☐ 2- Disagree

☐ 3- Agree

☐ 4- Strongly agree

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### Asian Values and Decision Making

**31. I understand pretty well what my ethnic group membership means to me.**

☐ 1- Strongly disagree

☐ 2- Disagree

☐ 3- Agree

☐ 4- Strongly agree

**32. In order to learn more about my ethnic background, I have often talked to other people about my ethnic group.**

☐ 1- Strongly disagree

☐ 2- Disagree

☐ 3- Agree

☐ 4- Strongly agree

**33. I have a lot of pride in my ethnic group.**

☐ 1- Strongly disagree

☐ 2- Disagree

☐ 3- Agree

☐ 4- Strongly agree

**34. I participate in cultural practices of my own group, such as special food, music, or customs.**

☐ 1- Strongly disagree

☐ 2- Disagree

☐ 3- Agree

☐ 4- Strongly agree

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### Asian Values and Decision Making

**35. I feel a strong attachment towards my own ethnic group.**

☐ 1- Strongly disagree

☐ 2- Disagree

☐ 3- Agree

☐ 4- Strongly agree

**36. I feel good about my cultural or ethnic background.**

☐ 1- Strongly disagree

☐ 2- Disagree

☐ 3- Agree

☐ 4- Strongly agree

**37. My ethnicity is**

☐ 1- Asian or Asian American

☐ 2- Black or African American

☐ 3- Hispanic or Latino

☐ 4- White, Caucasian, Anglo, European American

☐ 5- American Indian/Native American

☐ 6- Mixed; Parents are from two different groups

☐ 7- Other

Other (please specify)

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### Asian Values and Decision Making

**38. My mother's ethnicity is**

- ☐ 1- Asian or Asian American
- ☐ 2- Black or African American
- ☐ 3- Hispanic or Latino
- ☐ 4- White, Caucasian, Anglo, European American
- ☐ 5- American Indian/Native American
- ☐ 6- Mixed; Parents are from two different groups
- ☐ 7- Other

Other (please specify)

**39. My father's ethnicity is**

- ☐ 1- Asian or Asian American
- ☐ 2- Black or African American
- ☐ 3- Hispanic or Latino
- ☐ 4- White, Caucasian, Anglo, European American
- ☐ 5- American Indian/Native American
- ☐ 6- Mixed; Parents are from two different groups
- ☐ 7- Other

Other (please specify)

### 13. Culture

Use the scale below to indicate the extent to which you agree with the value expressed in each statement.

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### Asian Values and Decision Making

**40. One should not deviate from familial and social norms.**

☐ 1- Strongly Disagree

☐ 2- Disagree

☐ 3- Agree

☐ 4- Strongly Agree

**41. Children should not place their parents in retirement homes.**

☐ 1- Strongly Disagree

☐ 2- Disagree

☐ 3- Agree

☐ 4- Strongly Agree

**42. One need not focus all energies on one's studies.**

☐ 1- Strongly Disagree

☐ 2- Disagree

☐ 3- Agree

☐ 4- Strongly Agree

**43. One should be discouraged from talking about one's accomplishments.**

☐ 1- Strongly Disagree

☐ 2- Disagree

☐ 3- Agree

☐ 4- Strongly Agree

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### Asian Values and Decision Making

**44. Younger persons should be able to confront their elders.**

☐ 1- Strongly Disagree  
☐ 2- Disagree  
☐ 3- Agree  
☐ 4- Strongly Agree

**45. When one receives a gift, one should reciprocate with a gift of equal or greater value.**

☐ 1- Strongly Disagree  
☐ 2- Disagree  
☐ 3- Agree  
☐ 4- Strongly Agree

**46. One need not achieve academically in order to make one's parents proud.**

☐ 1- Strongly Disagree  
☐ 2- Disagree  
☐ 3- Agree  
☐ 4- Strongly Agree

**47. One need not minimize or depreciate one's own achievements.**

☐ 1- Strongly Disagree  
☐ 2- Disagree  
☐ 3- Agree  
☐ 4- Strongly Agree

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### Asian Values and Decision Making

**48. One should consider the needs of others before considering one's own needs.**

- ☐ 1- Strongly Disagree
- ☐ 2- Disagree
- ☐ 3- Agree
- ☐ 4- Strongly Agree

**49. Educational and career achievements need not be one's top priority.**

- ☐ 1- Strongly Disagree
- ☐ 2- Disagree
- ☐ 3- Agree
- ☐ 4- Strongly Agree

**50. One should think about one's group before oneself.**

- ☐ 1- Strongly Disagree
- ☐ 2- Disagree
- ☐ 3- Agree
- ☐ 4- Strongly Agree

**51. One should be able to question a person in an authority position.**

- ☐ 1- Strongly Disagree
- ☐ 2- Disagree
- ☐ 3- Agree
- ☐ 4- Strongly Agree

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### Asian Values and Decision Making

**52. Modesty is an important quality for a person.**

☐ 1- Strongly Disagree  
☐ 2- Disagree  
☐ 3- Agree  
☐ 4- Strongly Agree

**53. One's achievements should be viewed as family's achievements.**

☐ 1- Strongly Disagree  
☐ 2- Disagree  
☐ 3- Agree  
☐ 4- Strongly Agree

**54. One should avoid bringing displeasure to one's ancestors.**

☐ 1- Strongly Disagree  
☐ 2- Disagree  
☐ 3- Agree  
☐ 4- Strongly Agree

**55. One should have sufficient inner resources to resolve emotional problems.**

☐ 1- Strongly Disagree  
☐ 2- Disagree  
☐ 3- Agree  
☐ 4- Strongly Agree

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### Asian Values and Decision Making

**56. The worst thing one can do is to bring disgrace to one's family reputation.**

☐ 1- Strongly Disagree  
☐ 2- Disagree  
☐ 3- Agree  
☐ 4- Strongly Agree

**57. One need not remain reserved and tranquil.**

☐ 1- Strongly Disagree  
☐ 2- Disagree  
☐ 3- Agree  
☐ 4- Strongly Agree

**58. One should be humble and modest.**

☐ 1- Strongly Disagree  
☐ 2- Disagree  
☐ 3- Agree  
☐ 4- Strongly Agree

**59. Family's reputation is not the primary social concern.**

☐ 1- Strongly Disagree  
☐ 2- Disagree  
☐ 3- Agree  
☐ 4- Strongly Agree

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### Asian Values and Decision Making

**60. One need not be able to resolve psychological problems on one's own.**

- ☐ 1- Strongly Disagree
- ☐ 2- Disagree
- ☐ 3- Agree
- ☐ 4- Strongly Agree

**61. Occupational failure does not bring shame to the family.**

- ☐ 1- Strongly Disagree
- ☐ 2- Disagree
- ☐ 3- Agree
- ☐ 4- Strongly Agree

**62. One need not follow the role expectations (gender, family hierarchy) of one's family.**

- ☐ 1- Strongly Disagree
- ☐ 2- Disagree
- ☐ 3- Agree
- ☐ 4- Strongly Agree

**63. One should not make waves.**

- ☐ 1- Strongly Disagree
- ☐ 2- Disagree
- ☐ 3- Agree
- ☐ 4- Strongly Agree

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### Asian Values and Decision Making

**64. One need not control one's expression of emotions.**

☐ 1- Strongly Disagree  
☐ 2- Disagree  
☐ 3- Agree  
☐ 4- Strongly Agree

### 14. Culture

The questions which follow are for the purpose of collecting information about your historical background as well as more recent behaviors which may be related to your cultural identity. Choose the one answer which best describes you.

**65. What language can you speak?**

☐ 1- Asian only (for example, Chinese, Japanese, etc)  
☐ 2- Mostly Asian, some English  
☐ 3- Asian and English about equally well (bilingual)  
☐ 4- Mostly English, some Asian  
☐ 5- Only English

**66. What language do you prefer?**

☐ 1- Asian only (for example, Chinese, Japanese, etc) ☐ 2- Mostly Asian, some English ☐ 3- Asian and English about equally well (bilingual) ☐ 4- Mostly English, some Asian ☐ 5- Only English

**67. How do you identify yourself?**

☐ 1- Oriental ☐ 2- Asian ☐ 3- Asian-American ☐ 4- Chinese-American, Japanese-American, etc. ☐ 5- American

**68. Which identification does (did) your mother use?**

☐ 1- Oriental ☐ 2- Asian ☐ 3- Asian-American ☐ 4- Chinese-American, Japanese-American, etc. ☐ 5- American

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### Asian Values and Decision Making

69. Which identification does (did) your father use?

☐ 1- Oriental ☐ 2- Asian ☐ 3- Asian-American ☐ 4- Chinese-American, Japanese-American, etc. ☐ 5- American

70. What was the ethnic origin of the friends and peers you had, as a child up to age 6?

☐ 1- Almost exclusively Asians, Asian-Americans, Orientals ☐ 2- Mostly Asians, Asian-Americans, Orientals ☐ 3- About equally Asian groups and Anglo groups ☐ 4- Mostly Anglos, Blacks, Hispanics, or other non-Asian ethnic groups ☐ 5- Almost exclusively Anglos, Blacks, Hispanics, or other non-Asian ethnic groups

71. What was the ethnic origin of the friends and peers you had, as a child from 6 to 18?

☐ 1- Almost exclusively Asians, Asian-Americans, Orientals ☐ 2- Mostly Asians, Asian-Americans, Orientals ☐ 3- About equally Asian groups and Anglo groups ☐ 4- Mostly Anglos, Blacks, Hispanics, or other non-Asian ethnic groups ☐ 5- Almost exclusively Anglos, Blacks, Hispanics, or other non-Asian ethnic groups

72. Whom do you now associate with in the community?

☐ 1- Almost exclusively Asians, Asian-Americans, Orientals ☐ 2- Mostly Asians, Asian-Americans, Orientals ☐ 3- About equally Asian groups and Anglo groups ☐ 4- Mostly Anglos, Blacks, Hispanics, or other non-Asian ethnic groups ☐ 5- Almost exclusively Anglos, Blacks, Hispanics, or other non-Asian ethnic groups

73. If you could pick, whom would you prefer to associate with in the community?

☐ 1- Almost exclusively Asians, Asian-Americans, Orientals ☐ 2- Mostly Asians, Asian-Americans, Orientals ☐ 3- About equally Asian groups and Anglo groups ☐ 4- Mostly Anglos, Blacks, Hispanics, or other non-Asian ethnic groups ☐ 5- Almost exclusively Anglos, Blacks, Hispanics, or other non-Asian ethnic groups

74. What is your music preference?

☐ 1- Only Asian music (for example, Chinese, Japanese, Korean, Vietnamese, etc) ☐ 2- Mostly Asian ☐ 3- Equally Asian and English ☐ 4- Mostly English ☐ 5- English only

75. What is your movie preference?

☐ 1- Asian-language movies only ☐ 2- Asian-language movies mostly ☐ 3- Equally Asian/English English-language movies ☐ 4- Mostly English-language movies only ☐ 5- English-language movies only

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### Asian Values and Decision Making

**76. What generation are you? ( circle the generation that best applies to you: )**

☐ 1- 1st Generation = I was born in Asia or country other than U.S. ☐ 2- 2nd Generation = I was born in U.S., either parent was born in Asia or country other than U.S. ☐ 3- 3rd Generation = I was born in U.S., both parents were born in U.S., and all grandparents born in Asia or country other than U.S. ☐ 4- 4th Generation = I was born in U.S., both parents were born in U.S., and at least one grandparent born in Asia or country other than U.S. and one grandparent born in U.S. ☐ 5- 5th Generation = I was born in U.S., both parents were born in U.S., and all grandparents also born in U.S. ☐ 6- Don't know what generation best fits since I lack some information

**77. Where were you raised?**

☐ 1- In Asia only ☐ 2- Mostly in Asia, some in U.S. ☐ 3- Equally in Asia and U.S. ☐ 4- Mostly in U.S., some in Asia ☐ 5- In U.S. only

**78. What contact have you had with Asia?**

☐ 1- Raised one year or more in Asia ☐ 2- Lived for less than one year ☐ 3- Occasional visits to Asia ☐ 4- Occasional communications (letters, phone calls, etc.) with people in Asia ☐ 5- No exposure or communications with people in Asia

**79. What is your food preference at home?**

☐ 1- Exclusively Asian food ☐ 2- Mostly Asian food, some American ☐ 3- About equally Asian and American ☐ 4- Mostly American food ☐ 5- Exclusively American food

**80. What is your food preference in restaurants?**

☐ 1- Exclusively Asian food ☐ 2- Mostly Asian food, some American ☐ 3- About equally Asian and American ☐ 4- Mostly American food ☐ 5- Exclusively American food

**81. Do you**

☐ 1- Read only an Asian language? ☐ 2- Read an Asian language better than English? ☐ 3- Read both Asian and English equally well? ☐ 4- Read English better than an Asian language? ☐ 5- Read only English?

**82. Do you**

☐ 1- Write only an Asian language? ☐ 2- Write an Asian language better than English? ☐ 3- Write both Asian and English equally well? ☐ 4- Write English better than an Asian language? ☐ 5- Write only English?

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### Asian Values and Decision Making

83. If you consider yourself a member of the Asian group (Oriental, Asian, Asian-American, Chinese-American, etc., whatever term you prefer), how much pride do you have in this group?

☐ 1- Extremely proud    ☐ 2- Moderately proud    ☐ 3- Little pride    ☐ 4- No pride but do not feel negative toward group    ☐ 5- No pride but do feel negative toward group

84. How would you rate yourself?

☐ 1- Very Asian    ☐ 2- Mostly Asian    ☐ 3- Bicultural    ☐ 4- Mostly Westernized    ☐ 5- Very Westernized

85. Do you participate in Asian occasions, holidays, traditions, etc.?

☐ 1- Nearly all    ☐ 2- Most of them    ☐ 3- Some of them    ☐ 4- A few of them    ☐ 5- None at all

86. Rate yourself on how much you believe in Asian values (e.g., about marriage, families, education, work):

☐ 1- Do Not Believe    ☐ 2    ☐ 3    ☐ 4    ☐ 5- Strongly Believe in Asian Values

87. Rate yourself on how much you believe in American (Western) values:

☐ 1- Do Not Believe    ☐ 2    ☐ 3    ☐ 4    ☐ 5- Strongly Believe in American Values

88. Rate yourself on how well you fit when with other Asians of the same ethnicity:

☐ 1- Do Not Fit    ☐ 2    ☐ 3    ☐ 4    ☐ 5- Fit Very Well

89. Rate yourself on how well you fit when with other Americans who are non-Asians (Westerners):

☐ 1- Do Not Fit    ☐ 2    ☐ 3    ☐ 4    ☐ 5- Fit Very Well

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### Asian Values and Decision Making

90. There are many different ways in which people think of themselves. Which ONE of the following most closely describes how you view yourself?

☐ 1- I consider myself basically an Asian person (e.g., Chinese, Japanese, Korean, Vietnamese, etc.) Even though I live and work in America, I still view myself basically as an Asian person.

☐ 2- I consider myself basically as an American. Even though I have an Asian background and characteristics, I still view myself basically as an American.

☐ 3- I consider myself as an Asian-American, although deep down I always know I am an Asian.

☐ 4- I consider myself as Asian-American, although deep down, I view myself as an American first.

☐ 5- I consider myself as an Asian-American. I have both Asian and American characteristics, and I view myself as a blend of both.

### 15. Attitudes and Beliefs

To what extent do you agree or disagree with the statements below:

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

☐ 1- Disagree

☐ 2- Partly Disagree

☐ 3- Partly Agree

☐ 4- Agree

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

☐ 1- Disagree

☐ 2- Partly Disagree

☐ 3- Partly Agree

☐ 4- Agree

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### Asian Values and Decision Making

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

☐ 1- Disagree  
☐ 2- Partly Disagree  
☐ 3- Partly Agree  
☐ 4- Agree

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

☐ 1- Disagree  
☐ 2- Partly Disagree  
☐ 3- Partly Agree  
☐ 4- Agree

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

☐ 1- Disagree  
☐ 2- Partly Disagree  
☐ 3- Partly Agree  
☐ 4- Agree

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

☐ 1- Disagree  
☐ 2- Partly Disagree  
☐ 3- Partly Agree  
☐ 4- Agree

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### Asian Values and Decision Making

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

☐ 1- Disagree  
☐ 2- Partly Disagree  
☐ 3- Partly Agree  
☐ 4- Agree

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

☐ 1- Disagree  
☐ 2- Partly Disagree  
☐ 3- Partly Agree  
☐ 4- Agree

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

☐ 1- Disagree  
☐ 2- Partly Disagree  
☐ 3- Partly Agree  
☐ 4- Agree

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

☐ 1- Disagree  
☐ 2- Partly Disagree  
☐ 3- Partly Agree  
☐ 4- Agree

### 16. Attitudes and Beliefs

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### Asian Values and Decision Making

101. Please answer the following questions from (1) No Concern to (5) Very Concerned.

|   | 1- No Concern         | 2                     | 3                     | 4                     | 5- Very Concerned     |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. Whether therapy is what I need to help me with my problem.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2. Whether I'll be treated as a person in therapy.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. Whether the therapist will be honest with me.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 4. Whether the therapist will take me seriously.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 5. Whether the therapist shares my values.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6. Whether everything I say in therapy will be kept confidential.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7. Whether the therapist will think I'm a bad person if I talk about everything I have been thinking and feeling. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 8. Whether the therapist will understand my problem.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 9. Whether my friends will think I'm abnormal for coming.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 10. Whether my friends will think I'm more disturbed than I am.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

### 17. Attitudes and Beliefs

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### Asian Values and Decision Making

**102. Please answer the following questions from (1) No Concern to (5) Very Concerned.**

|  | 1- No Concern         | 2                     | 3                     | 4                     | 5- Very Concerned     |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 11. Whether the therapist will think I'm more disturbed than I am.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 12. Whether I will learn things about myself I don't really want to know.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 13. Whether I'll lose control of my emotions while in therapy.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 14. Whether the therapist will be competent to address my problem.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 15. Whether I will be pressured to do things in therapy I don't want to do.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 16. Whether I will be pressured to make changes in my lifestyle that I feel unwilling or unable to make right now. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 17. Whether I will be pressured into talking about things that I don't want to.                                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 18. Whether I will end up changing the way I think or feel about things and the world in general.                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 19. The thought of seeing a therapist would cause me to worry, experience nervousness or feel fearful in general.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

### 18. Part 2

Next, you will be given a hypothetical situation and asked to answer some questions regarding possible solutions. By clicking one button below, you will be given a situation at random.

**103. Click one of the three buttons below.**

☐ Blue ☐ Red ☐ Yellow

### 19. Decision Making

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Please fill out the following form. You cannot save data typed into this form. Please print your completed form if you would like a copy for your records. Highlight Fields

### Asian Values and Decision Making

On the following pages, a situation is listed that people might experience in their daily life. We are interested in how people deal with situations like these when they arise, and how they make decisions regarding this situation. Certainly people can react in a variety of ways. For this situation, imagine how you would approach the problem.

**104. You have been feeling unusually sad and miserable for the last few weeks. Even though you are tired all the time, you have trouble sleeping nearly every night. You don't feel like eating and have lost weight. You can't keep your mind on your work and you put off making decisions. Even day-to-day tasks seem too much for you. This has come to the attention of your boss, who is concerned about your lowered productivity. You begin to consider possible options.**

---

After you imagine how you would approach the problem, write down your top three solutions to the problem. Please list each separate solution on a separate line. If you cannot think of a solution to the problem, please write "none" so that we know you attempted to answer the question. Please note that there are no "right" and "wrong" answers. Please type your response below.

1

2

3

**105. To ensure accuracy for this survey, please click the number "2" below.**

☐ 1 ☐ 2

### 20. Decision Making

On the following pages, a situation is listed that people might experience in their daily life. We are interested in how people deal with situations like these when they arise, and how they make decisions regarding this situation. Certainly people can react in a variety of ways. For this situation, imagine how you would approach the problem.

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Please fill out the following form. You cannot save data typed into this form. Please print your completed form if you would like a copy for your records. Highlight Fields

### Asian Values and Decision Making

106. You have been feeling unusually sad and miserable for the last few weeks. Even though you are tired all the time, you have trouble sleeping nearly every night. You don't feel like eating and have lost weight. You can't keep your mind on your work and you put off making decisions. Even day to day tasks seem too much for you. This has come to the attention of your boss, who is concerned about your lowered productivity. You begin to look up consider possible options. You find out that there is a counseling center near to you, and that there is a bus route that stops directly in front of it. The cost is low, and your insurance will cover any extra expenses. There are available appointments in the next few days.

After you imagine how you would approach the problem, write down your top three solutions to the problem. Please list each separate solution on a separate line. If you cannot think of a solution to the problem, please write "none" so that we know you attempted to answer the question. Please note that there are no "right" and "wrong" answers. Please type your response below.

1

2

3

107. To ensure accuracy for this survey, please click the number "2" below.

☐ 1 ☐ 2

### 21. Decision Making

On the following pages, a situation is listed that people might experience in their daily life. We are interested in how people deal with situations like these when they arise, and how they make decisions regarding this situation. Certainly people can react in a variety of ways. For this situation, imagine how you would approach the problem.

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### Asian Values and Decision Making

108. You have been feeling unusually sad and miserable for the last few weeks. Even though you are tired all the time, you have trouble sleeping nearly every night. You don't feel like eating and have lost weight. You can't keep your mind on your work and you put off making decisions. Even day to day tasks seem too much for you. This has come to the attention of your boss, who is concerned about your lowered productivity. You begin to look up options. There is a Chinese counselor who speaks both Chinese and English. The counselor specializes in working with Chinese and Chinese American clients.

After you imagine how you would approach the problem, write down your top three solutions to the problem. Please list each separate solution on a separate line. If you cannot think of a solution to the problem, please write "none" so that we know you attempted to answer the question. Please note that there are no "right" and "wrong" answers. Please type your response below.

1

2

3

109. To ensure accuracy for this survey, please click the number "2" below.

☐ 1 ☐ 2

### 22. Decision Making Solutions

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### Asian Values and Decision Making

110. Please rank (from 1-7) how likely it would be for you to:

|   | 1- Not Likely At All  | 2                     | 3                     | 4- Somewhat Likely    | 5                     | 6                     | 7- Very Likely        |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. Seek help from your parents                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2. Seek help from other family members                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. Think things through by yourself                           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 4. Seek help from a mental health counselor                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 5. Seek help from your friends                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6. Pray about it  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7. Seek help from your significant other                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 8. Try to forget about it                                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 9. Seek help from a religious or spiritual leader             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 10. Do nothing  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 11. Seek help from a family physician or general practitioner | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 12. Other   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

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### Asian Values and Decision Making

**111. Assume that you will seek help from a mental health counselor. Please rate how important these factors are in your decision to seek help.**

|   | 1- Not Important      | 2                     | 3                     | 4- Somewhat Important | 5                     | 6                     | 7- Very Important     |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. Transportation of Services               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2. Location of Services                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. Out-of-Pocket Cost                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 4. Insurance Coverage of Services           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 5. Language of Therapist                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6. Ethnicity of Therapist                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7. Therapist Understanding of Asian Values  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 8. Incorporation of Prescription Medication | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 9. Incorporation of Mind-Body Approach      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 10. Incorporation of Talk Therapy           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 11. Availability of Appointments            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 12. Other                                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

### 23. Thank You

Thank you for participating in our Asian Values and Decision Making Study. We greatly appreciate your input and thank you for your time and interest.

This study examined how cultural factors influence views on mental health treatment, as well as the perceived practical and cultural barriers to mental health treatment. This study also used vignettes to assess how these barriers may influence decision making in situations concerning mental health.

For referrals and resources about mental health issues, such as depression, please visit:  
<http://www.nlm.nih.gov/medlineplus/mentalhealth.html>

**112. We are always looking for ways to improve, so please feel free to leave a comment or suggestion for us!**

If you would like to be entered into a drawing for a \$20 gift certificate, or if you are interested in the results of this study and participating in future studies, please click this link: [Asian Values and Decision Making \(Drawing\)](#)

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### Asian Values and Decision Making (Drawing)

#### 1. Interest in Drawing, Study Results, and Future Studies

1. Are you interested in being entered in a drawing for a \$20 gift certificate?

☐ Yes ☐ No

2. Are you interested in learning of the results of the study?

☐ Yes ☐ No

3. Would you like to find out about future studies?

☐ Yes ☐ No

4. If you would like to be entered into the drawing, receive the results of this study or to learn about future studies, please enter a valid mailing address or e-mail address so that we can contact you for this purpose. Contact information is optional and will not be shared with any third parties.

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