Examining Culturally Adapted, Values Based, Mental Health Stigma Reduction and Help-Seeking Messages for Asian Americans

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EXAMINING CULTURALLY ADAPTED, VALUES BASED, MENTAL HEALTH STIGMA REDUCTION AND HELP-SEEKING MESSAGES FOR ASIAN AMERICANS

A Dissertation Presented

by

ANNA M. YING

Submitted to the Office of Graduate Studies, University of Massachusetts Boston, In partial fulfillment of the requirements for the degree of

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Clinical Psychology Program
EXAMINING CULTURALLY ADAPTED, VALUES BASED, MENTAL HEALTH
STIGMA REDUCTION AND HELP-SEEKING MESSAGES FOR ASIAN AMERICANS

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ABSTRACT

EXAMINING CULTURALLY ADAPTED, VALUES BASED, MENTAL HEALTH
STIGMA REDUCTION AND HELP-SEEKING MESSAGES FOR ASIAN AMERICANS

August 2022

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Mental health stigma is a ubiquitous concern impacting help-seeking in the United States and worldwide, including in college students. Insufficient attention has been given to the cultural context of stigma and help-seeking in Asian Americans, constructs in which culture has inherent relevance. The current study was the first to develop and test the acceptability of an online culturally adapted, values-based stigma and help-seeking intervention for Asian American college students, intentionally framing the benefits of
therapy and mental wellness as congruent with values-based behaviors, intending to reduce the social costs and stigma of impaired functioning. A sample of 115 East, South, and Southeast Asian American college students across the U.S. read and listened to narrated stories of college students experiencing mental health symptoms, stigma concerns, and examples of the congruence of benefits from therapy and mental wellness with values. In a repeated measures design counterbalanced for order, these stories included a culturally adapted condition framed with Asian American values and a generic Eurocentric condition framed with European American values. Participants provided quantitative feedback on each condition, as well as specific messages, and completed questionnaires to assess for potential correlates of message acceptability. Notably, all messages regardless of condition were rated highly acceptable (e.g., averages above “equally agree and disagree”), but ratings between conditions were not significantly different. Correlates and subgroups for differential message acceptability are discussed. Future research is needed to further explore the usefulness of discussing values-based behaviors in help-seeking promotion, effective strategies for cultural adaptations, and potential differences for specific populations.
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Although Asian Americans experience anxiety and depression at comparable or higher rates than other racial groups in the U.S., they engage in mental health services at lower rates (Abe-Kim et al., 2007). These lower rates of mental health service utilization may be due, at least in part, to culturally-related stigma and beliefs (Abdullah & Brown, 2011; Augsberger et al., 2015; Choi & Miller, 2014; Reinke et al., 2004). Studies also indicate that college populations, including Asian American college students, may be particularly vulnerable to underutilization due to stigma (Choi & Miller, 2014; Eisenberg et al., 2009; Gulliver et al., 2010; Vogel et al., 2005). To address mental health stigma and help-seeking, it is critical to understand this cultural context and to develop culturally adapted interventions.

Despite recommendations to consider cultural variables, current research in stigma and help-seeking has given insufficient attention to the cultural context of stigma processes, often applying an implicitly Eurocentric lens, and likely limiting understanding of what content and framing would be effective for Asian Americans (Corrigan et al., 2014). Similarly, generic, Eurocentric (i.e., not culturally adapted) interventions, as well as health communication strategies, have been shown to be effective in targeting stigma and help-
seeking, but the omission of culturally relevant framing and content may be limiting stronger effects and receptiveness in Asian American populations (Abdullah & Brown, 2011; Rao et al., 2007). Abdullah and Brown’s (2011) recommendations for the expansion of stigma research include determining the salient cultural values, determining stigmatizing beliefs, creating and validating measures for stigma and cultural values, documenting how cultural values relate to stigma, examining moderators related to outcomes, and developing culturally appropriate interventions. Further, culturally adapted interventions do not aim to shift the cultural values themselves, but rather frame mental health and its services in congruence with cultural values.

Asian Americans are heterogeneous, representing many ethnicities, sociocultural histories, and immigration histories. Simultaneously, East, Southeast, and South Asian American ethnic groups have some commonly shared values including collectivism, familism, filial piety, saving face, conformity to norms, and emotional self-control (Han, Cha, Lee, & Lee, 2017; B. S. K. Kim & Hong, 2004) that inform understanding of how stigma is expressed in these communities. In the context of highly social and relational values, such as collectivism, familism, and filial piety, stigma is often expressed as loss of face and shame for the families of people with mental illness, which are significant social costs. For example, the family of a person with mental illness may anticipate that their ethnic community might believe the individual’s mental illness to be “weakness” in the family, potentially leading to public shame (Han et al., 2017). Thus, individuals with mental illness and their families avoid seeking help to prevent these social costs and protect the well-being of the family. A reader from a European cultural lens in the U.S. may implicitly or explicitly
conclude that Asian American values are to blame for mental health stigma. However, researchers and readers of this literature must be mindful of when they may be privileging dominant (i.e., European) cultural values as preeminent.

Some stigma interventions (although small in number) have been culturally adapted to specific Asian American groups and values (Han et al., 2014; Shin, 2004; Shin & Lukens, 2002; Teng & Friedman, 2009; Woo, 2013; L. H. Yang, Lai, et al., 2014). Cultural adaptations included psychoeducation targeting culturally-relevant stigma beliefs and stereotypes, culturally-relevant disease models, discussion of shame, inclusion of family members in treatment, research staff speaking participants’ native language, inclusion of peer co-leaders in focus groups, collaboration with local community organizations, and consideration of cultural values (e.g., collectivism and saving face). However, no intervention research has been found that centers Asian American values, directly measures the targeted Asian values, and explicitly utilizes these values as strengths to target stigma and help-seeking, such as through framing help-seeking and recovery as congruent with pursuing the collective good.

As a step toward culturally adapting stigma interventions that utilize Asian American values as strengths, the current study assessed acceptability of online culturally adapted and generic Eurocentric stigma reduction and help-seeking messages for self-identified East, South, and Southeast Asian American college students, and examined how these responses related to endorsement of the targeted values. Participants read and listened to narrated vignettes embedded with these messages and provide feedback on acceptability. I predicted that participants would respond more positively to the culturally adapted stigma reduction
and help-seeking messages than the generic, Eurocentric messages. Further, I predicted higher endorsement of the targeted Asian American values will be related to greater differential responses between conditions in the following primary outcome variables: believability, persuasiveness, agreement, relatability, consistency with values, and intention to tell a friend. Hypothesized correlates included endorsement of the targeted Asian American values, self-construal, demographic characteristics (e.g., generational status or ethnicity), symptoms of depression and anxiety, and pre-test help-seeking stigma. These findings will provide data to support future development of online interventions incorporating Asian American cultural values as strengths to promote mental health help-seeking in these populations. See Appendix A for a diagram of the study design and related hypotheses, and Appendix B for a table of the order of measures.

**Overarching Aims**

1. Examined the acceptability of online, narrative, culturally adapted and generic Eurocentric messages in Asian Americans. Primary outcomes included believability, persuasiveness, agreement, relatability, consistency with values, and intention to tell a friend.

2. Examined other correlates of outcomes, including the targeted Asian American values (e.g., collectivism, family recognition through achievement, emotional self-control, and conformity to norms from the Asian American Values Scale and saving face from the Confucian Values Scale), interdependent self-construal, demographic characteristics (e.g., generational status, ethnicity, etc.), symptoms of depression and anxiety, and pre-test help-seeking stigma.
3. Explored potential changes in help-seeking stigma, attitudes, and intentions after exposure to these messages.
CHAPTER 2
BACKGROUND AND SIGNIFICANCE

Overview of Rationale for Current Study

According to the U.S. Census Bureau (2015), Asian Americans account for 6.4% (or 20.3 million) of the total U.S. population, and have been a growing minority, increasing 70.6% from 2000 to 2014. While Asian Americans as a group experience comparable rates of mental health disorders, some studies report the lowest rates of help-seeking behaviors and service utilization among Asian Americans compared to other racial groups (Abe-Kim et al., 2007; Sue et al., 2012). In a large survey from 2003, Abe-Kim and colleagues found that 8.6% of the total sample of Asian Americans (n = 2095) sought mental health services and 34% of Asian Americans who had a “probable diagnosis” sought “any service,” including general medical services and specialty mental health services (Abe-Kim et al., 2007). This underutilization often takes the form of delays in treatment seeking until the mental health concern has reached greater severity, including seeking informal help other than mental health professionals (Sue et al., 2012).

Studies have indicated that mental health stigma may contribute to this underutilization of care in Asian Americans, including college students (Abdullah & Brown, 2011; Augsberger et al., 2015; Choi & Miller, 2014; Corrigan, 2004; Kam et al., 2018; U.S.
Department of Health and Human Services, 1999). Further, mental health stigma operates in an inherently cultural context which impacts the experiences and behavioral responses of the individuals with mental illness, family members, and communities. Thus, understanding this cultural context is necessary to develop culturally adapted stigma and help-seeking interventions. The following review will provide a brief overview of mental health stigma and impacts on help-seeking in general, mental health stigma and impacts on help-seeking in Asian Americans specifically, generic non-adapted mental health stigma and help-seeking interventions, culturally adapted stigma and help-seeking interventions in Asian Americans, and a brief description of the current study.

**Mental Health Stigma**

Mental health stigma was established as “the most formidable obstacle to future progress in the arena of mental illness and health,” in the United States Surgeon General’s report on mental health (U.S. Department of Health and Human Services, 1999, p. 3), and has been well-documented in the United States and worldwide (Busby Grant et al., 2016; Link et al., 2004; Link & Phelan, 2001; Martin et al., 2000; Parcesepe & Cabassa, 2014; U.S. Department of Health and Human Services, 1999; Vogel et al., 2007). Link and Phelan (2001) define stigma as “the co-occurrence of its components -- labeling, stereotyping, separation, status loss, and discrimination” and “for stigmatization to occur, power must be exercised” (Link & Phelan, 2001, p. 363). This often takes the form of ascribing people with mental illness as the “out-group” and people without mental illness as the “in-group” (Corrigan, 2004). Thus, in mental health stigma, negative beliefs and attitudes, such as labels
and stereotypes, would be attributed to people with mental illness, which may lead to stigma behaviors, such as separation, status loss, and discrimination.

Different types of stigma have also been classified in the literature. Public stigma is the perception or experience of negative societal attitudes and prejudice by the general public about people with mental illness or seeking help for mental illness. Common terms for this type of stigma include public stigma or perceived public stigma (Corrigan, 2004). Stigma by close others is the perception or experience of prejudice by people in one’s close social network (e.g., family, friends, etc.) about people with mental illness (Vogel et al., 2009). An example would be a family member expressing that a person with mental illness is “weak” or “dangerous.” Self-stigma is the internalization of these external implicit or explicit messages when one is experiencing mental health concerns (Vogel et al., 2006). An example would be believing that “I am weak or dangerous because I have a mental illness.” Some scholars also refer to “personal stigma,” which is the endorsement or agreement with perceived public stigma, regardless of whether one is currently experiencing mental health concerns; for example, “[I believe that] people with mental illness are weak or dangerous” (Busby Grant et al., 2016).

Systematic Reviews Document Stigma Beliefs, Attitudes, and Behaviors in the U.S. and Globally

Research documents stigma beliefs, attitudes, and behaviors in the U.S. and globally. Although stigma is a complex social and psychological process, much of the research fails to address culture and non-reflexively applies a Western lens (Clement et al., 2015; Corrigan, 2004; Vogel et al., 2007). A systematic literature review by Parcesepe and Cabassa (2014)
Report on the pervasive problem of public stigma in the United States, including stigma beliefs, attitudes, and behaviors. Stigma beliefs and attitudes included perceptions of dangerousness, violence, criminality, and incompetency, as well as shame and blame. Stigma behaviors included social distancing and discrimination. An example of social distancing, Martin, Pescolido, and Tuch (Martin et al., 2000) found that American respondents ($n = 1444$) were unwilling to have people with a mental illness marry into their family (68%), work closely with them (58%), or spend an evening socializing with them (56%). Research finds that stigma discrimination may include employers being less willing to offer jobs and landlords less willing to rent housing to people with mental illness (Corrigan, 2004). Reviews of the literature rarely discussed cultural context as potentially informing the nature of stigma behaviors.

Parcesepe and Cabassa also found that stigmatizing beliefs and behaviors varied by mental illness; for example, social distance was greatest for substance use disorders, followed by schizophrenia and depression (2014). However, stigma literature is often inconsistent in its definition or framing of mental illness, making generalizations from the literature difficult. Some authors frame mental illness as a psychotic-spectrum disorder, some as depression or anxiety, and some did not define or frame mental illness at all. Framing of mental illness, particularly diagnostic category, is an important consideration in interpreting the implications of stigma research.

In addition to research done in the U.S., research also identifies stigma as problematic in other European countries. For example, research has documented public stigma and self-stigma towards people with depression and anxiety in a sample of Australian college students
(Busby Grant et al., 2016). Altogether, a review of the literature illustrates the ubiquity of mental health stigma in the United States and worldwide, regardless of racial or cultural group and across diagnostic categories. However, there is a dearth of stigma research that considers or addresses the cultural context of stigma processes.

**Mental Health Stigma’s Impact on Help-Seeking**

The impacts of mental health stigma are of great concern as a major barrier to treatment (Corrigan, 2004; Corrigan et al., 2014; U.S. Department of Health and Human Services, 1999). In some studies, stigma associated with mental illness and seeking treatment, termed help-seeking stigma, is the most often cited reason for why people do not seek counseling (Corrigan, 2004; Corrigan et al., 2014). Corrigan and colleagues also acknowledge that more attention needs to be given to cultural variables in understanding the processes of help-seeking stigma, but do not suggest specific guidelines of how to do so (Corrigan et al., 2014).

**Help-Seeking Stigma, Attitudes, Intentions, and Behaviors**

Help-seeking stigma can manifest at all levels, public, close others, and self, and activates stigma beliefs, attitudes, and behaviors, including labels, stereotypes, shame, increased self-stigma, diminished self-esteem, and lost social opportunities when seeking treatment for mental illness (Corrigan, 2004; Corrigan et al., 2014). The perceived costs and benefits of treatment options impact help-seeking intentions, and stigma contributes a significant cost to seeking help in people with mental illness and their families. Thus, the costs of help-seeking stigma reduce *attitudes* toward and *intentions* to carry out *behaviors* of seeking help.
Examples of help-seeking *attitudes* may include the degree to which individuals believe help-seeking is useless to useful, ineffective to effective, or desirable to undesirable. The *intention* to seek help (i.e., help-seeking intentions) is defined as “a conscious plan to exert effort to communicate about a problem, emotional pain, or psychological issue, where that communication is an attempt to obtain perceived support, advice or assistance that will reduce personal distress” (White et al., 2018, p. 65). Further, positive *attitudes* towards and *intentions* to seek help have been found to be related to *behaviors of seeking help*. For example, Mojtabai and colleagues (2016) found that willingness to seek professional help for a “serious emotional problem” was significantly associated with future help-seeking behaviors, concluding that intentions for mental health help-seeking may predict future help-seeking behavior. As will be discussed later, exploratory outcomes of the current study included help-seeking stigma, attitudes and intentions, in addition to the primary aim of examining the acceptability of the stigma reduction and help-seeking messages.

**Systematic Reviews Verify Negative Impact of Stigma on Help-Seeking**

Systematic reviews confirm the negative impact of stigma on mental health help-seeking attitudes, intentions, and behaviors worldwide and in the United States. A systematic review of quantitative and qualitative studies conducted worldwide found a negative association between stigma and professional help-seeking attitudes, intentions, and behaviors (i.e., with a mental health professional), and found internalized treatment stigma was most frequently associated with reduced help-seeking (Clement et al., 2015). Their synthesis of the qualitative studies produced a conceptual model of the relationship between stigma and help-seeking, such that a combination of structural stigma (e.g., media representations, laws,
inequitable allocation of resources for mental health, etc.), negative stereotypes/beliefs (e.g., people with mental illness or people receiving mental health care are weak, to blame, or failed at dealing with life’s problems), anticipation or experience of stigma behaviors (e.g., social rejection, discrimination in employment, etc.), and need or preference for non-disclosure (e.g., masking symptoms, difficulty talking to professionals) deter mental health help-seeking. Notably, this model does not address the potential role of cultural variables affecting stigma. For example, the particular “costs” of stigma may vary depending on the extent to which one endorses individualistic or collectivistic values, as well as independent or interdependent self-construal. In addition, a systematic review and meta-analysis by Schnyder and colleagues (2017) found that less help-seeking behavior was associated with participants’ stigmatizing attitudes towards people with mental illness as well as negative attitudes towards help-seeking. The authors report that all reviewed studies but one, from Singapore, were conducted in European dominant countries (U.S., Europe, Australia). In sum, stigma has been shown to negatively impact professional help-seeking for mental health, particularly in European dominant countries, but research often overlooks the role of cultural context.

Help-Seeking in College Students

In addition to general populations, research in college-aged samples indicates that this population may be particularly vulnerable to underutilization of mental health services, with mental health stigma as a large contributor. Indeed, a Canadian sample of college students endorsed significantly more negative attitudes toward seeking professional help for mental health than older adults (Mackenzie et al., 2006). Further, stigma has been established as
predicting poorer attitudes toward seeking professional help in large U.S. college samples (Eisenberg et al., 2009; Vogel et al., 2005). A systematic review of the perceived barriers to mental health help-seeking in adolescents and young adults confirm that young people identify stigma and embarrassment as one of the most important barriers to help-seeking (Gulliver et al., 2010). Structural equation modeling in a U.S. college sample, 90% identifying as White, indicated that perceptions of public stigma contributed to self-stigma (i.e., internalization of stigma), which negatively impacted professional help-seeking attitudes and willingness to seek counseling (Vogel et al., 2007). Still, these studies failed to explore the role and relevancy of culture. For example, values of individualism in a 90% White identified sample may influence the process of the impact of public and self-stigma on help-seeking. Accordingly, as will be later discussed, the current study contributes to the need for more stigma research in college students recognizing cultural factors.

Thus, it’s clear that mental health stigma is a problem in the United States, including in college students, particularly in terms of its impact on help-seeking. However, considering the deeply cultural and social nature of stigma as a construct, the current literature in the United States and other European dominant countries fails to adequately address the role of culture and values in the manifestation of mental health stigma and reduced help-seeking, typically taking for granted the European lens applied. In their integrative review of mental illness stigma, Abdullah and Brown (2011) call for the expansion of mental health stigma literature to better account for the role of culture, particularly in racial and ethnic minorities. Their recommendations for expanding this research include determining the salient cultural values, determining stigmatizing beliefs, creating and validating measures for stigma and
cultural values, documenting how cultural values relate to stigma, examining moderators related to outcomes, and developing culturally appropriate interventions. Recognizing this need, some researchers have explored the cultural context of mental health stigma in Asian Americans.

**Mental Health Stigma in Asian Americans**

**Defining Asian American**

Acknowledging the wide diversity of backgrounds and experiences of Asian Americans and the often lack of consideration for this diversity in the literature, the following review of mental health stigma in Asian Americans includes ethnicities from South, Southeast, and East Asia and varying generational statuses. This review will primarily focus on studies conducted in the United States to represent the experience of Asian Americans in the U.S. sociopolitical and mental health contexts. However, not including an exhaustive review of studies conducted abroad is noted as a limitation given that many first and second generation Asian Americans bring and live out the culture of their native countries.

**Asian American Cultural Values**

As proposed by Abdullah and Brown (2011), identifying salient Asian American cultural values are an important step in better accounting for the role of culture in stigma processes, to frame interventions, and to expand the current literature. Further, identifying these differences from Eurocentric values of individualism and independent self-construal (Markus & Kitayama, 1991, 2010) does not aim to communicate inherent positive or negative appraisal of Asian American values in general or in relation to stigma. Rather, it is
to call to attention that Asian American ideologies and values interact with globally documented negative attitudes toward people with mental illness to create specific manifestations or expressions of stigma in these communities, how they affect help-seeking, and factors to consider in developing stigma interventions for Asian Americans. Asian Americans are a heterogeneous group representing many ethnicities, sociocultural histories, immigration histories, and values. Still considering this heterogeneity, South, Southeast, and East Asian communities share some similar underlying ideologies emphasizing social connectedness, a self-concept that incorporates one’s family and community, and responsibility to maintain relationships and fulfill one’s social role (Liu, 2018; Markus & Kitayama, 1991, 2010; Uba, 2003). Failing to maintain relationships and fulfill one’s social role threatens the group’s functioning and wellness. Further, one is motivated to pursue the good of the group in part because one’s own wellness is linked with the wellness of the group, namely family. Drawing from these social and relational principles, research has specified commonly shared values including collectivism, familism, filial piety, conformity to norms, emotional self-control, saving face, and humility (Han et al., 2017; B. S. K. Kim & Hong, 2004).

Some of the values that are explored in the mental health stigma research (e.g. through the use of the Asian American Values Scale: B. S. K. Kim, Li, & Ng, 2005) are collectivism, conformity to norms, emotional self-control, family recognition through achievement, and humility. Collectivism is operationalized as prioritizing group goals and well-being over one’s own, such as the sample item, “the needs of the community should supersede those of the individual” (Kim et al., 2005, p. 192). Conformity to norms is defined
as adhering to the group’s social expectations, such as, “one should adhere to the values, beliefs, and behaviors that one’s society considers normal and acceptable” (Kim et al., 2005, p. 192). Emotional self-control is characterized by expectation not to express or act on emotion, such as “it is better to hold one’s emotions inside than to burden others by expressing them” (Kim et al., 2005, p. 192). Family recognition through achievement is defined as occupational or academic success reflecting on the family, such as “one’s academic and occupational reputation reflects the family’s reputation” (Kim et al., 2005, p. 192). Humility is operationalized as not boasting in one’s success, such as “one should not openly talk about one’s accomplishments” (Kim et al., 2005, p. 193).

In addition to the dimensions of the Asian American Values Scale, values such as filial piety, familism, and saving face are also included in the literature as providing a context for understanding the nuances of mental health stigma in Asian Americans. Filial piety is described as taking care of one’s parents and behaving in ways that reflect positively on them (Abdullah & Brown, 2011; B. S. K. Kim et al., 1999). Familism is characterized by sharing obligations and responsibilities among family members (Han et al., 2017). Saving face is defined as protecting the reputation, sense of dignity, and social standing in the community for one’s self and one’s family (Han et al., 2017; Monkhouse et al., 2013). Understanding the cultural context of stigma processes in Asian Americans, including these values, is important to better inform how to utilize Asian American values as mechanisms to increase the salience and relevance of content in interventions targeting stigma and help-seeking in these populations, such as through framing help-seeking as a means for the individual to serve the collective good. The following is a review of the research on mental health stigma in Asian
Americans specifically, giving attention to the cultural context and how it shapes stigma attitudes, beliefs, and behaviors.

**Mental Health Stigma’s Impact on Help-Seeking in Asian Americans**

Congruent with findings in Eurocentric populations (Corrigan, 2004; Corrigan et al., 2014; U.S. Department of Health and Human Services, 1999), the literature exploring the impacts of mental health stigma in Asian Americans has primarily focused on underutilization of treatment due to negative attitudes for professional help seeking. As discussed, because stigma (including negative beliefs, loss of face, shame, and increased self-stigma) contributes to the costs of help-seeking, help-seeking intentions would understandably be impacted by what would be costly in the Asian American cultural context, namely social and relational damages. Notably, most studies found reporting on the social impact of mental health help-seeking focused on social costs, and none were found exploring how appropriate treatment and mental wellness could serve the collective good.

Both quantitative and qualitative research confirm that Asian American cultural values relate to reduced help-seeking through anticipation of stigma and social penalties, typically loss of face and shame (H. L. Cheng et al., 2018; Choi & Miller, 2014; Eisenberg et al., 2009; Han & Pong, 2015; Kam et al., 2018; Leong et al., 2011; Masuda & Boone, 2011; Shea & Yeh, 2008; Ting & Hwang, 2009). For example, Liu found that public stigma mediated the relationship between individual Confucian values and help-seeking attitudes, and parental Confucian values moderated the relations between individual values and stigma, such that high *parental* Confucian values superseded individual values (Liu, 2018). These findings highlight the salience of family cohesion on stigma and help-seeking, even in the
presence of low individual Confucian values. In another study modeling Asian American values, stigma, and help-seeking, Choi and Miller (2014) established that stigma mediated the relationship between Asian American values and help-seeking in Asian American college students. Specifically, they found the following models significant, regardless of generational status: 1) Asian American values → general public stigma → self-stigma → attitudes towards seeking help → willingness for counseling, and 2) Asian American values → stigma by close others → self-stigma → attitudes toward seeking help → willingness for counseling. The authors argue that these models highlight the context in which mental health stigma occurs in Asian American college students, such that individuals may avoid seeking professional help due to fear of deviation from cultural norms and values or damaging their family’s reputation. Studies have also specifically documented loss of face and shame as anticipated costs of mental health help-seeking in samples of Asian American parents, older adults, and college students (Augsberger et al., 2015; Han et al., 2017; Han & Pong, 2015; Lau & Takeuchi, 2001; Park et al., 2018). Taken together, quantitative research investigating the impact of stigma on help-seeking in Asian Americans indicates the importance of considering the particular social price of mental health help-seeking.

Qualitative research also supports the findings of quantitative work regarding the relationships between Asian values, stigma, and help-seeking. For example, Augsberger and colleagues (2015) found themes of stigma negatively impacting attitudes toward help-seeking in Asian American interviewees. One participant identified how community stigma (i.e. public stigma) posed barriers for help-seeking: “I know there’s like a stigma … with Asian people like seeing… having a therapist or talking to a psychologist” (p. 7). Further,
participants reported stigma for help-seeking from family members (i.e. stigma from close others). After a participant discussed some of her mental health concerns with her high school guidance counselor, her parents responded, “Why would you say something like that, why did you tell people about our personal lives, we should keep it in the family” (p. 6).

Highlighting the role of stigma beliefs about the causes of mental illness, belief that psychological problems are a sign of weakness was another common theme found. An interviewee told her mother that she was hospitalized during college for a suicide attempt and her mother replied, “Oh, I don’t know how you can be so weak… You have to be strong.”

This quote illustrates how help-seeking for mental health may activate beliefs that needing help for mental health is indicative of personal weakness, and thus, motivate people with mental illness (and their families) to avoid the stigma by avoiding help-seeking. In sum, this body of research illustrates the importance of considering values such as saving face or collectivism when examining stigma’s impact on help-seeking.

Altogether, existing studies illustrate that stigma negatively impacts help-seeking in Asian Americans (Cheon et al., 2016; Choi & Miller, 2014; Jang et al., 2017; Lau & Takeuchi, 2001; Lee et al., 2009; Leong et al., 2011; Masuda & Boone, 2011; Shea & Yeh, 2008). Cultural context and values impact what (and how much) would be “costly” about seeking help for mental health, including risk of shame, loss of face, or perception of not appropriately carrying out values (e.g. emotional self-control). Some literature directly measures Asian values through quantitative or qualitative methods, but most do not, pointing to a need for more research. Further, intentionally attempting to understand this context can inform how to tailor stigma and help-seeking interventions, incorporating the cultural context.
and how cultural values can be congruent with help-seeking and recovery from mental illness. Stigma interventions may consider framing individual wellness through appropriate treatment to serve collective wellness via recovery and increased values-driven behaviors. Perhaps this framing may reduce some of the anticipated social costs caused by impaired functioning from mental illness and be particularly suited for Asian American communities.

**Culturally Related Stigma Beliefs and Attitudes**

Literature illustrates how social and relational values shape how stigma looks in Asian American communities and highlights what could be costly about help-seeking for mental health. Stigma in Asian Americans impacts not only the individual, but also and perhaps more importantly, affects the family and community, demonstrating the necessary context of collectivism, familism, and filial piety in understanding stigma processes in Asian Americans. In addition, research also indicates that stigma arises when community members perceive that people with mental illness are a burden on family or society, are unable to bring pride to the family (e.g., through achievement), cause shame and loss of face for the family, cannot perform their social roles, or cannot control their emotions (e.g., thus leading to being a burden on family or inability to perform social roles) (Han et al., 2017; L. H. Yang, Chen, et al., 2014). The processes and manifestation of stigma in Asian Americans found in the literature clearly illustrate the salience and inextricability of social and relational values such as collectivism, familism, filial piety, saving face, family recognition through achievement, conformity, emotional control, and interdependent self-construal.

*Collectivism, Filial Piety, and Familism Contextualize Stigma Experienced As Loss of Face and Shame.*
Studies confirm the salience of collectivism, filial piety, and familism in mental health stigma research in Asian Americans. For example, qualitative interviews about mental health stigma found that 61% of Korean American interviewees endorsed collectivism and family values (Han et al., 2017). In the context of collectivism, filial piety, and familism, both positive and negative attributes of an individual can impact how the rest of the group is viewed. Pride for the accomplishments of one family member extends to the entire family, and similarly, stigma towards one person’s mental illness also affects the entire family, leading to loss of face (i.e., reputation or social standing) and shame for the family. Loss of face is a significant social cost given the high social connectedness of Asian American communities. For example, the family of a person with mental illness may anticipate that their ethnic community might consider the individual’s mental illness as a “weakness” in the family; thus, the family would suffer a loss of face if their community knew about the mental illness. An interviewee stated, “most Koreans feel ashamed to lay down their weaknesses...it is shameful to be open about mental illness because it can bring family dishonor. It is shameful to the family, and so they deny the fact” (Han et al., 2017, p. 137). Shame and loss of face then lead to desire to conceal mental illness and the family’s “weaknesses,” in order to save face and protect the well-being of the family (Cheon et al., 2016; Han et al., 2017). These studies highlight how stigma looks like shame and loss of face in a cultural context that values collectivism, filial piety, familism. Further, the impact of these social costs on help-seeking will be discussed later in this review.

*Stigma Beliefs: Dangerous, Incurable, Permanent.*
Stigma beliefs about people with mental illness, its causes, and who is to blame operate in this context of social connectedness. Global negative beliefs about people with mental illness, including dangerousness, incurability, and permanence interact with Asian American values such that these beliefs reflect negatively on the family, therefore leading to shame and loss of face for the family (e.g., Han et al., 2017; Rao, Feinglass, & Corrigan, 2007; Walker et al., 2008). Han and colleagues (2017) found that 61% of Korean American interviewees believed that the community viewed people with mental illness as “dangerous” and criminals.” However, the authors did not report if they further defined mental illness (e.g., diagnostic category) to the participants, which may have impacted the beliefs they endorsed. One informant identified that the fears of dangerousness might be connected to beliefs that mental illness is “not curable.” Cheng (2015) also discussed beliefs of incurability and permanence, often associated with stronger beliefs of genetic causes of mental illness. While beliefs of dangerousness, incurability, and permanence are found in the literature in populations with Eurocentric values, it is important to understand the particular social costs to Asian American families.

**Stigma Beliefs: Blame and Causes for Mental Illness.**

Beliefs about blame and the causes for mental illness (e.g., genetic, social, or personal weakness) are also in accord with global beliefs, but more attention must be given to the social and familial presentations and implications (e.g., Jimenez, Bartels, Cardenas, Daliwal, & Alegria, 2012; P. Y. Kim & Kendall, 2015; Lee et al., 2009). For example, Chaudry and Chen (2018) found that Asian Americans may endorse familial blame in addition to personal blame for the presence of mental illness, which was associated with higher composite scores.
of Asian Values as well as interdependent self-construal, documenting how blame can be collective and not just individual. Regarding causes of mental illness, Cheng (2015) found that responses to vignettes with genetic explanations of depression predicted more stigma (e.g., fear, blame, and less willingness to help someone with depression) than those in the social explanation group (i.e., divorce and best friend passing) or no explanation (control) group in Asian Americans. They also found that social explanations were associated with more positive attitudes, such as willingness to be near, help, and hire someone with depression. Although Asian American values were not measured in this study, it’s possible that genetic explanations might be related to fears of genetic “contamination” or intergenerational transmission of illness in the family, leading to shame and loss of face for the family. Like Cheng (2015), Yang and colleagues (2013) also explored the impact of genetic or non-genetic causes of mental illness in Chinese American and European American university students in New York City. They found that genetic causes (i.e., the threat of inheritability or transmission) accounted for the impact of ethnicity on stigma behaviors, such as social restriction (e.g., should the individual marry or have children). Beliefs in genetic causes of mental illness may be particularly threatening in Asian American communities because of the social costs for the whole family.

Similarly, studies have found that beliefs that mental illness is caused by character deficits or personal weakness contribute to stigma in Asian Americans (Cheon et al., 2016; Jang et al., 2009; Miville & Constantine, 2007; Mokkarala et al., 2016; Park et al., 2018). For example, Mokkarala and colleagues (2016) found that South Asian Americans were more likely to believe that mental illness was caused by character deficits compared to White
Americans in an online survey. Notably, these questions were single items, and “mental illness” was not further defined for participants: it’s possible that participants would have reported different causes for different mental illnesses. Cheon and colleagues (2016) found that Korean American religious leaders reported community beliefs that mental illness is a personal weakness if “you are not strong enough to handle it yourself.” While values were not directly measured, in the context of collectivism, filial piety, and familialism, individuals with mental illness who do not “handle things themselves” may also be perceived as being a burden on the family or not controlling their emotions, which may reinforce beliefs of character deficits for not prioritizing the well-being of the family.

**Inability to Fulfill Social Roles or Conform to Norms.**

Thus, in addition to beliefs about people with mental illness, its causes, and who is to blame, stigma may also precipitate when people with mental illness are (or community members perceive them to be) a burden on family or community goals, unable to contribute to society, or unable to perform their social roles in Asian American communities (Han et al., 2017; L. H. Yang, Chen, et al., 2014). Demonstrating the high importance placed on contributing to (and not burdening) the good of the collective, Han and colleagues reported that community members consider people with mental illness a strain on society, and “if any individual disturbs the everyday lives of others, we should define what he/she has as an illness.” (Han et al., 2017, p. 138). Likewise, Yang and colleagues interviewed Chinese immigrants in NYC from lower socioeconomic backgrounds and found that stigma was magnified when mental illness, framed as a psychotic-spectrum disorder, interfered with employment and meaningful financial contribution to the family (L. H. Yang, Chen, et al.,
An interviewee’s appraisal of their inability to work presents as self-stigma in this quote: “I’m a patient, unlike normal people who can work; because we patients are different and less (than others). Ability to work (is most important); nothing else would make us different from others” (p. 88). In some instances, the individual’s illness interfered with caregiver employment as well, adding to the financial burden on the family and potential self-stigma for the individual with mental illness: “I don’t want to burden others (family members) because of this [illness]. [I] make them unable to work. Drag them down by taking (me to get) medication, seeing doctors” (p. 88). The inability to work and fulfill their social role in the family adds burden, disrupts the regular functioning of the family, and impairs family relationships. Finally, if the individual is able to work, then stigma may be mitigated. “She (a person with mental illness) could take medication. If she takes medication, her sickness will become stable and she can work. She’s like a normal person. And then she doesn’t lose face (social status)” (p. 90). In this community, an individual’s ability to fulfill their social role by meaningfully participating and contributing to the group’s goals (i.e., consistent employment and financial contribution to the family) can intensify or mitigate stigma.

Similarly, inability to (or community beliefs that people with mental illness cannot) conform to cultural norms and values manifests as stigma because non-conformity threatens social contribution and connectedness. Han and colleagues reported beliefs among Korean American interviewees that people with mental illness cannot “control their actions” and act “normal” according to the norms of the community. “[Korean immigrants think] they [people with mental illness] are not normal in everyday life. They don’t talk, and they isolate
themselves by staying in their own rooms.” “People usually try to control their behaviors and stick to social rules. People with mental illness cannot control themselves. They cannot manage to behave properly. Instead, they burst into a fit of anger and display illogical thinking” (Han et al., 2017, p. 137). These quotes also highlight the value of emotional control in conforming to social norms and roles. In sum, these studies illustrate the importance of considering cultural context in mental health stigma: when people with mental illness (or community members perceive they) cannot perform social roles or conform to social norms, social structures and relationships are threatened, and expressed as public, close other, or self-stigma. Given the importance of social and relational values in Asian Americans communities, and the particular relevance to expressions of stigma, these values may serve important functions in culturally adapting stigma interventions in Asian Americans, such as framing mental health services as beneficial for collective wellness and connectedness.

**Generic, Non-adapted Mental Health Stigma and Help-Seeking Interventions**

Research in stigma and help-seeking in both general populations and Asian American communities point to a need for interventions. Studies, including meta-analyses, systematic reviews, and health communication scholarship, have reported effective stigma and help-seeking interventions (Sarah Clement et al., 2013; R. L. Collins et al., 2019; Corrigan et al., 2012; Griffiths et al., 2014; Mehta et al., 2015; Mittal et al., 2012; Xu et al., 2018); however, many of these interventions are administered across populations without acknowledging or measuring the implicit application of Eurocentric values. Cultural context and values are important to tailoring interventions to target groups, but are pervasively omitted from study
designs and discussions. Also pertinent to contextual tailoring, scholars vary in explicitly identifying what types of stigma the interventions are addressing (e.g., public, personal, self, help-seeking, etc.), as well as how mental health is framed (e.g., diagnostic categories).

**Interventions Overview: Education and Contact Strategies, In Vivo and Online Modalities**

Scholars in this area typically identify education and contact as primary strategies of stigma interventions, which are carried out through *in vivo* (i.e., in person) or online/media-based modalities (Ashton et al., 2018; Sarah Clement et al., 2013; Corrigan et al., 2012; Corrigan & Kosyluk, 2013). Education strategies aim to replace inaccurate negative stereotypes with accurate information, typically executed through presenting and refuting myths (Corrigan & Kosyluk, 2013). For example, the belief that people with mental illness are dangerous is refuted by presenting statistics that people with mental illness are more likely to be victims, not perpetrators, of violent crime. Education strategies can be performed through presentations, educational websites, videos, public service announcements, etc.

Contact strategies aim to provide exposure to people or stories of lived experience with mental illness and treatment, which also appear to counteract stereotypes and improve attitudes toward people with mental illness as well as treatments. Contact strategies can be carried out through an individual with mental illness telling their story of illness and recovery in person (i.e., *in vivo*), videos of these stories, family members telling stories, or even brief vignettes online. Stigma interventions may include only education, only contact, or a combination of the two (Corrigan & Kosyluk, 2013). Further, educational components should provide knowledge to help the target audience contextualize contact interventions and
internalize the key messages. Key messages will be further discussed in the next section.

While research supports both contact and education strategies to be effective, Corrigan and colleagues’ (2012) meta-analysis on public stigma found that both education and contact strategies demonstrated positive effects, including on attitudes, affect, and behavioral intention on reducing public stigma towards adults and adolescents with mental illness; but contact was more effective in adults and education was more effective in adolescents. Yet, other systematic reviews and meta-analyses, including a meta-analysis of stigma intervention randomized controlled trials (RCT’s) found that contact and education are similarly effective for stigma reduction (Griffiths et al., 2014; Mehta et al., 2015). For example, a systematic review of stigma interventions on medium and long-term outcomes (i.e., at least 4 weeks) found evidence that education and contact stigma interventions did not significantly differ in reducing stigma attitudes for medium and long-term outcomes (Mehta et al., 2015). In sum, research supports contact (i.e., exposure to lived experience of mental illness and treatment) and education (i.e., information) as effective strategies in targeting stigma.

Regarding modality, Corrigan and colleagues (2012) found that in vivo (i.e., in person) stigma intervention modalities were overall more effective as a contact vehicle than video in reducing public stigma. On the other hand, Griffiths and colleagues’ (2014) meta-analysis (mostly administered in European dominant countries, including the U.S.) found that internet programs were as effective as in vivo programs in reducing mental health stigma. Scholars agree that effectiveness of stigma interventions is optimal when specifically tailoring to the target population and what needs to be changed in that population (Corrigan & Kosyluk, 2013). In sum, while it’s unclear if in vivo or internet-based strategies are
similarly effective contact strategies, reviews highlight the importance of identifying who the primary targets are (i.e., individuals, communities, or larger populations), and how that may affect the choice to use \textit{in vivo} modalities for potentially stronger effects versus using media-based modalities for the ease of dissemination (Corrigan et al., 2012). As will be later discussed, the current study uses an online modality.

\textbf{Interventions Overview: Key Messages}

Research has also identified key messages for stigma and help-seeking interventions. In their narrative literature review, Ashton and colleagues (2018) recommend that key messages for both education and contact must counteract negative attitudes and beliefs as well as affirm positive attitudes. Key messages regardless of strategy may include but are not limited to the following:

- mental illness is common and indiscriminate
- recovery is possible and common
- people and their experiences of mental illness vary widely (i.e., they’re heterogenous)
- the causes of mental illness are complex
- no one is just a diagnosis
- people with mental illness are not violent and are far more likely to be victims rather than perpetrators of violent crime
- stigma exists and negatively impacts people with mental illness

These messages refute common global beliefs and stereotypes about mental illness, as discussed earlier (Parcesepe & Cabassa, 2014). In addition, Corrigan and colleagues (2013)
recommend that messaging in contact-based strategies should include lived experience of mental illness, including struggles, recovery, resilience, and attaining goals. Put another way, contact messages should generally include stories of “the way down” to unwellness, including the person’s symptoms and how they impeded goals, and “the way up” to wellness, including recovery and attaining goals (Corrigan & Kosyluk, 2013).

While authors mention that messages congruent with the target group’s goals, as well as speakers/messengers matched with and relatable to the target audience, they do not explore or provide guidelines for targeting messages based on cultural context or values (Ashton et al., 2018; Corrigan et al., 2013). Undoubtedly, some of these key messages may have ubiquitous value; however, some messages may not apply equally or with the same framing across different cultural contexts, such as in Asian American communities. Additionally, the narrative review did not report if help-seeking stigma was included or the countries of origin for the selected publications, thus limiting to whom and in what cultural contexts these recommendations may be applied (Ashton et al., 2018).

**Interventions in College Students**

Given the documented vulnerabilities to stigma and reduced help-seeking in college students (Choi & Miller, 2014; Eisenberg et al., 2009; Vogel et al., 2005), it is important to understand what interventions may be effective in these populations. Research in college students generally supports both contact and education stigma interventions as effective in targeting stigma and help-seeking in college students, both in the U.S. and abroad (Clough et al., 2019; Hackler et al., 2016; Kosyluk et al., 2016; Yamaguchi et al., 2013). For example, a systematic review on mental health stigma interventions in college students (mostly in
European dominant countries, including the U.S.) indicated that education, contact, and combined interventions demonstrated positive impacts on stigma attitudes, including those for help-seeking (Yamaguchi et al., 2013). Interventions varied in which diagnostic categories were highlighted; thus, application related to diagnostic category is limited. Consistent with the general literature, clear identification of the type of stigma targeted or the framing of mental illness (i.e., diagnostic category) is frequently absent in the literature in college students. Inclusion of cultural context is also scant in the literature, pointing to a need for more research in this area for college students.

In sum, a review of the literature in mental health stigma and help-seeking interventions for both the general population and college populations in the U.S. and worldwide indicates the effectiveness of education and contact interventions, using in vivo and/or media-based modalities. Researchers suggest that identifying target groups and tailoring interventions may enhance the effectiveness of the interventions on outcomes (Ashton et al., 2018; Corrigan et al., 2013); however, guidelines or examples of tailoring are not readily discussed in the literature. Identifying the type of stigma (e.g., public stigma for help-seeking), framing of mental health (e.g., diagnostic categories), and cultural context (e.g., values such as collectivism) may be important in tailoring interventions. Cultural context may be of particular importance for tailoring key messages (Ashton et al., 2018). Given the absence of readily available guidelines in traditional stigma intervention research for tailoring anti-stigma and help-seeking messages for Asian Americans, transdisciplinary research in health communication may inform this development process.

Health Communication and Mental Health Stigma
In addition to traditional stigma intervention research, health communication research in mental health stigma also aims to tailor information to subgroups and supports the theoretical purpose of developing culturally adapted stigma reduction and help-seeking messages for Asian Americans. Personal prejudices develop within the social and cultural environment and are interpersonally communicated, which in turn impact the social and cultural environment, including others’ behaviors and attitudes and societal structures (Smith & Applegate, 2018). Stigma is perpetuated through communication but can also be mitigated through it. Thus, it would be prudent to think critically about communication, including tailoring and framing, as it relates to stigma interventions.

Indeed, scholars have highlighted the importance of tailored health communication (Rimer & Kreuter, 2006). Rimer and Kreuter (2006) define tailored health communication as information and behavior change strategies targeting a specific person or population based on information unique to them and the outcomes of interest. Changes in the outcomes of interest (i.e., behavioral or attitudinal changes) relate to the extent that the target group attends to the communication, thinks about it, finds it relevant and salient to them, and then responds to it (e.g., takes action). Thus, to maximize potential changes in the outcomes of interest, tailored health communication aims to increase perceived relevance and salience of the health information, which may increase motivation to receive and process the information. Rimer and Kreuter (2006) identify at least four strategies of tailoring health communication: 1) match content to the target’s needs and interests, 2) frame information in a context meaningful to the target, 3) design the communication to capture the target’s attention, and 4)
distribute the information in the amount, type, and channels accessible to and preferred by the target.

*Studies Find Message Framing Affects Receptivity.*

A relatively recent endeavor in academic literature for mental health stigma, tailored health communication has been found to be effective in targeting mental health stigma and help-seeking (Clark-Hitt et al., 2012; Heley et al., 2019; Lazard et al., 2016; Lienemann & Siegel, 2018; J. A. Lueck, 2017; J. Lueck & Yzer, 2018; Pace et al., 2018; Vyncke & van Gorp, 2018). This area of research aims to identify framing strategies, and for whom these may be helpful, as well as the impact of message source characteristics on message persuasiveness. However, similar to the dearth of cultural context in the traditional mental health stigma intervention literature, the research in health communication targeting mental health stigma and help-seeking also often omits the role of cultural values in tailoring communication.

For example, Lienemann and Siegel (2018) found that matching online depression public service announcements (PSAs) to participants’ attitudes about the function of help-seeking for depression related to more positive help-seeking outcome expectations, attitudes, and intentions compared to control messages in adults with mild to severe depression symptoms. Specifically, matching was based on participants’ attitudes about the function of help-seeking for depression: help-seeking for depression can help people achieve personal goals or help-seeking for depression can help maintain social relationships. The authors conclude that messages tailored to match the target’s attitudes about the function of help-seeking can enhance help-seeking outcomes in people with depression symptoms. The
authors did not measure cultural values, but it is likely that attitudes about the function of help-seeking operate within a cultural context. Perhaps individualistic or collectivistic values, as well as independent or interdependent self-construal, could impact the extent to which participants endorse stronger attitudes toward achieving personal goals or maintaining social relationships as functions of help-seeking for depression. It is reasonable that messages matched based on values may improve help-seeking outcomes.

Similarly, message framing has been found to affect receptivity and other outcomes in college populations (J. A. Lueck, 2017; J. Lueck & Yzer, 2018). For example, Lueck (2017) used eye-tracking to investigate how tailored messaging may affect attention to help-seeking messages in college students with depression symptoms. Lueck tailored messaging for depression help-seeking in college students based on what may be gained (e.g., improved mental health, reduced stress, interest or pleasure in hobbies) or lost (e.g., worsened mental health, increased stress, loss of interest or pleasure in hobbies) when choosing to seek or not seek help for depression. Eye-tracking demonstrated that students with depression symptoms tended to pay more attention to illness information in the loss frame rather than the gain frame. Lueck illustrated how the context of diagnostic category differentially influenced attention to messaging within gain or loss framing; however, it is important to consider how cultural context may impact the appraisal of what is “gain” or “loss” and to what degree.

Altogether, the literature on health communication reinforces the need for tailored stigma and help-seeking interventions. Messages need to be tailored such that they are relevant and salient for the target audience, requiring intentionality and awareness of the cultural context and using the relevant cultural values as mechanisms to frame messages and
enhance receptivity and outcomes. Indeed, recognizing the scarcity of addressing cultural context in stigma research, Abdullah and Brown (2011) identified several suggestions for developing culturally adapted stigma interventions, including identification of culturally related stigma beliefs, cultural values, and reframing mental health and services to better fit within these values, rather than attempting to shift the values themselves. In response to the need to expand mental health stigma and help-seeking interventions to address cultural context, some researchers have tailored mental health stigma interventions for Asian American cultural contexts.

**Mental Health Stigma and Help-Seeking Interventions in Asian Americans**

A few studies have investigated stigma reduction interventions in Asian American populations. Some researchers have applied generic Eurocentric stigma and help-seeking interventions, implicitly centering Eurocentric values, in Asian American populations (Rao et al., 2007; E. C. Wong et al., 2018). Research has found that these generic, non-adapted interventions led to positive changes in beliefs about dangerousness, social distance (i.e., move next door, socialize, work closely), and professional help-seeking intentions in Asian Americans. A critique of these studies is that they often compared scores of Asian Americans to that of White Americans, implicitly communicating the White experience as default and the Asian American experience as “other” or problematic. It may be helpful for more studies to seek understanding of what aspects of non-adapted interventions are effective in Asian American populations, and what aspects are important in adapting interventions.

**Culturally Adapted Interventions**
In addition to non-adapted stigma reduction interventions, a small number of interventions have been culturally tailored to specific Asian American groups and values (Han et al., 2014; Shin, 2004; Shin & Lukens, 2002; Teng & Friedman, 2009; Woo, 2013; L. H. Yang, Lai, et al., 2014). Consistent with the aims of health communication literature, culturally adapting interventions for stigma and help-seeking likely enhance the perceived relevance and salience of the health information, increasing participants’ motivation to receive and process it. Overall, these interventions have shown positive effects; however, many are limited in dissemination ability (e.g., due to time or personnel needed) and most do not measure how Asian American values may relate to acceptability or effectiveness of the intervention. Additionally, no culturally adapted interventions were found that address the potential social or relational benefits of mental wellness.

Shin and colleagues conducted multiple studies investigating the effects of culturally adapted in vivo education-based stigma interventions in Korean Americans (Shin, 2004; Shin & Lukens, 2002). Participants were parents “of Korean origin,” and although the authors do not report generational status, their discussion of implications for Korean immigrants may imply that participants were of 1st or 1.5 generation. Cultural adaptations included Korean speaking staff, measures translated into Korean, emphasizing the biological and environmental contributions to mental illness (with less focus on “affective factors”), lecture-style didactics taught by a professional (congruent with values of respect for experts and authority, as well as the preferences for approaches that require less self-disclosure at the outset), culturally-relevant disease models (e.g., beliefs that mental illness is due to haunting by a ghost or misfortune destined from birth, shamanism, fortune/misfortune), and
discussions of the “psyche” and “soma” to explain how emotions are related to psychological functioning. Although values were not measured, the authors concluded that the interventions adapted for Korean American values significantly reduced stigma and increased help-seeking attitudes when compared to the control group, which only received individual supportive therapy. They also found increased help-seeking intentions towards relatives, close friends, and clergy for emotional and relational problems, but not towards strangers or professional agencies. The authors emphasize the importance of considering the role of family members as allies in treatment when developing stigma interventions for Korean Americans. A notable limitation is that this intervention was time-intensive, including 10 weekly sessions of 90 minutes, a potential limitation for dissemination.

As an example of a culturally adapted stigma intervention with fewer sessions and comparably easier dissemination, Yang and colleagues culturally adapted a 3-session group in vivo mostly education-based stigma reduction intervention for Chinese immigrant caregivers of individuals with psychosis (L. H. Yang, Lai, et al., 2014). They developed the intervention based on the “In Our Own Voice” program by NAMI, the NAMI Family to Family program, and the Calmes’ (2009) stigma module. Cultural adaptations included conducting the sessions in Mandarin, inclusion of a peer caregiver co-leader, presenting Chinese cultural beliefs about mental illness (e.g., caused by “excessive thinking”) concurrently with biological models, providing information about potential recovery, and identifying culturally relevant internalized stigma and stereotypes (e.g., regarding work productivity or social competence). The authors acknowledged that the interventions used Western techniques (e.g., cognitive restructuring), but also attempted to maintain flexibility
to address cultural concerns (e.g., family shame) that might be relevant to stigma. Attention was given to cultural values including collectivism and saving face. They did not report significant findings, but found a trend for reduced self-stigma ($p = .09$) in a subgroup of caregivers that started at higher baseline levels of stigma. Similar to the culturally adapted interventions discussed above, cultural adaptations made by Yang and colleagues (2014) may have enhanced the salience and relevance of the information in a manner that increased participants’ receptivity to the information.

A last example of a culturally adapted intervention with even fewer barriers to dissemination is Han and colleagues’ public media program, called Tam An (“Inner Peace” in Vietnamese), targeting Vietnamese populations of low SES (Han et al., 2014). Tam An was developed for community members likely experiencing PTSD and depression from the Vietnam War but who were not currently utilizing mental health services, and used a combination of education and contact-based radio shows and newspaper columns. Before development of Tam An, a group of bilingual and bicultural Vietnamese mental health professionals (of differing generation groups and migration histories) assessed the Vietnamese immigrant community’s knowledge and attitudes toward mental health and the community readiness. They found themes of “loss of face,” limited knowledge about mental illness, limited knowledge about how to get professional help, and negative attitudes about seeking help, which they used to develop the project. Cultural adaptations included addressing common beliefs in Vietnamese culture (e.g., beliefs that mental illness came from lack of “controlling oneself” or having “bad thoughts and deeds in the past life”), and consideration of values including collectivism and saving face (e.g., addressed through
broadly disseminating to reach the larger community, as stigma is experienced within community). Five principal messages of the mass media project included:

1. “Mental health is a part of every community and family,”
2. “Mental illness is real and must be acknowledged,”
3. “No one is to be blamed,”
4. “Mental illness can be treated,”
5. “Resources exist and treatment works.”

Messages were communicated through broadcasting on Vietnamese-language radio shows, later transcribed for local newspapers, on a weekly basis by a “messenger” with expert knowledge in working with people with mental illness and already had a positive reputation in the community. Using both education and contact-based strategies, the radio shows included interviews and life stories of mental health service consumers and family members, mental health professionals, health officials, youth and parents, and community members. Cultural adaptations of message content and attention to messenger characteristics (e.g., expert and respected in the community) likely increased the salience and relevancy of the message for this target group. Focus group members remarked that the radio shows increased general awareness of mental health and how to seek help, often sparked conversations with friends, increased openness to seeking professional help, and members even requested that the radio shows continue so that more people can learn. Overall, the authors concluded from focus groups and other anecdotal feedback that the intervention may have increased interest and willingness to seek mental health services; however, the authors did not measure changes in stigma or help-seeking specifically. The authors were very thoughtful in developing the
intervention congruently with the community’s cultural context and values to maximize the motivation for participants to receive and process the information. Further, the use of mass media increased the ability to widely disseminate the intervention to the larger community.

In sum, cultural adaptation of stigma interventions for Asian Americans is a promising area of research. Cultural adaptations have included psychoeducation targeting culturally-relevant stigma beliefs and stereotypes, culturally-relevant disease models, discussion of shame, inclusion of family members in treatment, research staff speaking participants’ native language, inclusion of peer co-leaders in focus groups, collaboration with local community organizations, and consideration of cultural values (e.g., collectivism and saving face). Some examples of interventions included in vivo individual and group sessions over multiple weeks, which provide a modality to target families in the context of social and relational values. Some non-adapted stigma intervention studies also suggest that in vivo stigma and help-seeking interventions may be more effective than media-based interventions (Corrigan & Kosyluk, 2013). However, despite the potential for stronger effects, in vivo modalities limit the ability for dissemination due to the social and time capital needed to administer the interventions. There is a need for easier dissemination of such important work while maintaining sufficient cultural adaptations and strength of effect. Further, easier to disseminate cultural adaptation studies may benefit from measuring and utilizing Asian American values, such as collectivism, familism, filial piety, family recognition through achievement, emotional self-control, saving face, and interdependent self-construal. Namely, adaptations may explore the effectiveness of framing help-seeking and mental wellness as
congruent with the collective good through social and relational valued action and reducing the social costs of impaired functioning.

Summary

A review of the literature indicates that while mental health stigma is a ubiquitous concern impacting help-seeking in the United States and worldwide, including in college students, insufficient attention has been given to the cultural context of stigma and help-seeking in Asian Americans, constructs in which culture has inherent relevance. Similarly, research indicates that non-adapted stigma and help-seeking interventions, as well as health communication strategies, have been shown to be effective, but fail to adequately address how cultural context impacts what content and framing would be effective for Asian Americans. Key messages have been developed for stigma and help-seeking interventions in general populations, and while these key messages may have relatively universal helpfulness, some messages may not apply equally or with the same framing in Asian American cultural contexts.

In response to the inadequate consideration of cultural context, some researchers have documented how cultural values and beliefs relate to stigma and help-seeking in Asian American communities, and thus what cultural adaptations may be effective for interventions. Research confirms that stigma often manifests as shame and loss of face in a cultural context that values collectivism, filial piety, familism, and saving face in Asian American communities. Stigma may also arise when community members perceive that people with mental illness are a burden on family or society, unable to bring pride to the family, cause shame and loss of face for the family, cannot perform their social roles, or
cannot control their emotions (Han et al., 2017; L. H. Yang, Chen, et al., 2014). Further, the social and relational costs of seeking help for mental health would activate this stigma and shame, demotivating people with mental illness and their families from seeking treatment. Readers with European cultural values may implicitly conclude that Asian American values are to blame for stigma and low help-seeking; but we must be careful not to privilege European values or perspectives as preeminent or default.

Rather than trying to shift the values themselves in a way that enacts oppressive monoculturalism, understanding the role of Asian American cultural values in stigma processes can inform how to frame mental health services consistently with these values, enacting ethnocultural responsiveness (APA Race and Ethnicity Guidelines, 2019) by utilizing Asian values as strengths to increase the salience and relevance of information in stigma and help-seeking interventions and enhancing participants’ motivation to receive and process the information. As recommended by Abdullah and Brown (2011), it is important for adaptations to illustrate how values can be congruent with help-seeking and recovery from mental illness. For example, messages that frame mental health help-seeking as a way for the individual to better serve the good of the collective, such as through reduced symptoms and increased valued action, may improve resonance of interventions in Asian Americans. A small area of the literature documents the promise of culturally adapted education and contact-based interventions in Asian Americans; however, some of these interventions require more resources (e.g., time, staff, finances), limiting dissemination ability.

In conclusion, there is a need to develop culturally adapted, values-cogngruent messages, in hopes of increasing relevance, salience, and receptivity, to address stigma and
help-seeking in Asian Americans that can be easily disseminated. Further, research explicitly measuring Asian values and the potential relations between how endorsements of these values relate to responses to the culturally adapted messages would further identify what aspects of adapted and non-adapted messages may be effective in Asian Americans.

**Current Study**

As a step toward culturally adapting stigma interventions that utilize Asian values as strengths, the current study assessed the acceptability of culturally adapted and generic Eurocentric stigma reduction and help-seeking messages in South, Southeast, and East, Asian American college students. The sample was specified to South, Southeast, and East due to research documenting relations of scores on the Asian American Values Scale to scores of stigma and help-seeking in these populations (Botha et al., 2017; B. S. K. Kim et al., 2005; Paul Youngbin Kim et al., 2016; Y. J. Wong et al., 2010). The study was administered online to facilitate dissemination, to limit risk of participant exposure to the COVID-19 global pandemic, and informed by research suggesting that Asian Americans may not be inclined to attend events related to mental health in person (Han et al., 2017). Using an online platform, participants read and listened to narrated stories, embedded with these messages, of college students experiencing depression and anxiety, concerns of stigma, the impact of seeking and receiving help, and examples of the congruence of mental wellness with cultural values. Participants provided quantitative feedback on each condition as a whole, culturally adapted or generic Eurocentric, as well as the specific messages, so that investigators “can learn what will be most helpful to better support other students having similar experiences,” quoted from the instructions that will be provided to participants. The culturally adapted condition aimed
to disconfirm common stigma beliefs in Asian American populations as well as utilize Asian American values (e.g., collectivism, family recognition through achievement, emotional self-control, conformity to norms, and saving face) and interdependent self-construal to frame help-seeking and recovery as congruent with values-based behaviors and mitigating the social costs of impaired functioning. The generic Eurocentric condition targeted typical stigma beliefs and messages of non-adapted interventions, as well as individualistic values and independent self-construal, often implicitly included in non-adapted interventions. The design of the study was within-subject to methodologically control for the potentially wide variability between subjects. Participants completed both conditions, culturally adapted and generic Eurocentric, counterbalanced for order and provided feedback after each one. Additionally, I explored between-subject analyses of condition, culturally adapted or generic Eurocentric, for potential impacts on help-seeking stigma, attitudes, and intentions between pre-test and after the first condition. Regarding within-subjects aims (i.e., comparing culturally or generic Eurocentric messages within subject), primary outcomes of message acceptability included believability, persuasiveness, agreement, relatability, consistency with values (both participant values and those of family and friends), and intention to tell a friend. Potential correlates of message acceptability included endorsement of the targeted Asian American values, self-construal, demographic characteristics (e.g., generational status or ethnicity), symptoms of depression and anxiety, and pre-test help-seeking stigma. Measures of depression and anxiety were included due to research indicating that participants currently experiencing the mental illness symptoms presented in messaging may differentially respond to messaging compared to those not experiencing those symptoms (J. A. Lueck, 2017; J.
Lueck & Yzer, 2018). Regarding between-subjects aims (i.e., comparing groups that viewed culturally or generic Eurocentric messages first), exploratory outcomes included help-seeking stigma, attitudes, and intentions.
CHAPTER 3

METHOD

Sample

A sample of 361 participants were recruited using campus email blasts, the PSYCH 101 subject pool, and social media. I recruited college students at the University of Massachusetts Boston and other universities nationwide. College students aged 18 and above (or legal adult age in their state) who self-identified as East, South, and Southeast Asian American, and had lived in the U.S. for at least 10 years with no more than 6 months of living outside the country during that period, were asked to participate in the study. Students with sufficient time spent in the U.S. were recruited to establish the U.S. as their primary social space or referent. All participants had equal opportunities for compensation. After data collection, data from Asian American adoptees raised by non-Asian American families or multi-racial Asian Americans raised solely by non-Asian American caregivers were excluded from analysis due to limited exposure to Asian American family socialization and cultural values. Given the reliance on English language proficiency for the questionnaires and messages, only participants who rated their English fluency as a 4 or higher out of a 5-point Likert scale (1=Not at all fluent, 3 = Moderately fluent, 5= Completely fluent) were included in the final sample. Additionally, because counterbalancing of order occurred through the
survey platform’s random assignment at consent, the final sample sizes for each condition after data exclusions were not equal. The group that viewed the culturally adapted condition first represented 53.9% of the sample (n=62) and the group that viewed the generic Eurocentric condition first represented 46.1% of the final sample (n=53). See Figure 1 for participant flow.

Demographics of the final sample are presented in Table 1. The mean age was 21.42 years (SD=3.74), ranging from 18 to 47 years of age. Participants could “select all” options to identify themselves regarding gender identity, sexual orientation, and race. Gender identities included Agender, Cisgender, Man, Nonbinary, Queer/Gender queer, Transgender, Woman, “Rather not say,” and “Not listed.” After data collection, gender identity was coded as Non-cisgender Minority, Cisgender Woman, and Cisgender Man. Sexual orientations included Asexual, Bisexual, Gay/Lesbian, Heterosexual, Queer, Pansexual, and “Not listed.” After data collection, sexual orientation was coded as Sexual Minority and Heterosexual.

Regarding race, 100% (n=114) identified as Asian. Additional racial identifications included Asian & Latinx/Hispanic (non-White), Asian & Latinx/Hispanic (White), Asian & Pacific Islander/Native Hawaiian, Asian & White & Multiracial, Asian & White, and Asian & Multiracial. None identified as Black/of African descent, Middle Eastern/North African, or Native American/American Indian/Alaskan Native/Indigenous. Ethnic region was coded from open-ended ethnicity into dichotomous variables with group or non-group membership, allowing participants to identify with multiple ethnic regions: South Asian (including Sri Lankan, Pakistani, Indian, Desi, Bengali, and Nepali), Southeast Asian (including Hmong, Cambodian, Vietnamese, Filipino, and Thai), and East Asian (including Chinese, Taiwanese,
Japanese, Hong Kong-ese, and Korean), and “Asian” or “Asian American” with no reported ethnic region. Generational status was coded based on where respondents were born, age of immigration to the U.S. (if applicable), and where respondents’ parents were born. Generational categories were defined as follows: 1st gen (moved > 16 years old), 1.5 gen (moved ≤ 16 years old), 2nd gen (born in the U.S. and parent/s immigrated), and 3rd+ gen (self and parents born in the U.S.). A chi-square of generational status by ethnic region, omitting participants who identified with more than one of these ethnic regions, found no significant differences, $X^2(6,115) = 8.23, p=.18$. See Table 2 for a sample breakdown of ethnic region by generational status.

Additionally, a majority of the sample had some history of psychotherapy (55.7%, $n=64$) and were not taking psychotropic medication (87%, $n=100$). A majority of the sample identified as single, not married (91.3%, $n=105$) and most were attending the University of Massachusetts Boston (61.7%, $n=71$). The states most represented, in order, included Massachusetts (60.9%, $n=70$), California (7.8%, $n=9$), and New Jersey (5.2%, $n=6$), with 17 additional states represented.
Enrolled
Completed consent (n=361)

Data Excluded (n=246)
- Did not continue responding until demographics survey, or did not report race and ethnicity data for self or caregivers; thus, respondent did not self-identify as Asian American (n=217)
- Excluded based on eligibility criteria (n=29)
  - College student
  - Age 18 or older (legal adult age in their state)
  - Self-identified as East, South, or Southeast Asian American
  - Lived in the US for at least 10 years, with no more than 6 months of living outside the country during that period
  - Raised by at least 1 Asian or Asian American caregiver
  - Rated their English fluency as a 4 or higher out of a 5-point Likert scale (1=Not at all fluent, 3 = Moderately fluent, 5= Completely fluent)

Data kept for analysis
Remaining eligible respondents (n=115)
- culturally adapted first (n=62)
- generic Eurocentric first (n=53)

Figure 1. Participant Flow Through the Study
<table>
<thead>
<tr>
<th>Table 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographic Characteristics of the Sample</td>
</tr>
<tr>
<td><strong>Age M (SD)</strong></td>
</tr>
<tr>
<td>21.42 (3.74)</td>
</tr>
<tr>
<td><strong>Gender Identity</strong>*</td>
</tr>
<tr>
<td>Non-cisgender Minority</td>
</tr>
<tr>
<td>Agender</td>
</tr>
<tr>
<td>Nonbinary</td>
</tr>
<tr>
<td>Queer/Gender queer</td>
</tr>
<tr>
<td>Transgender</td>
</tr>
<tr>
<td>Not listed</td>
</tr>
<tr>
<td>7.0% (n=8)</td>
</tr>
<tr>
<td>1.7% (n=2)</td>
</tr>
<tr>
<td>3.5% (n=4)</td>
</tr>
<tr>
<td>1.7% (n=2)</td>
</tr>
<tr>
<td>.9% (n=1)</td>
</tr>
<tr>
<td>Cisgender Woman</td>
</tr>
<tr>
<td>73.9% (n=86)</td>
</tr>
<tr>
<td>Cisgender Man</td>
</tr>
<tr>
<td>19.1% (n=22)</td>
</tr>
<tr>
<td>Rather not say</td>
</tr>
<tr>
<td>.9% (n=1)</td>
</tr>
<tr>
<td><strong>Sexual Orientation</strong>*</td>
</tr>
<tr>
<td>Sexual Minority</td>
</tr>
<tr>
<td>Asexual</td>
</tr>
<tr>
<td>Bisexual</td>
</tr>
<tr>
<td>Gay/Lesbian</td>
</tr>
<tr>
<td>Queer</td>
</tr>
<tr>
<td>Pansexual</td>
</tr>
<tr>
<td>Not listed</td>
</tr>
<tr>
<td>33.0% (n=38)</td>
</tr>
<tr>
<td>5.2% (n=6)</td>
</tr>
<tr>
<td>18.3% (n=21)</td>
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<tr>
<td>3.5% (n=4)</td>
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<tr>
<td>5.2% (n=6)</td>
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<tr>
<td>3.5% (n=4)</td>
</tr>
<tr>
<td>7.8% (n=9)</td>
</tr>
<tr>
<td>Heterosexual</td>
</tr>
<tr>
<td>65.2% (n=75)</td>
</tr>
<tr>
<td><strong>Race</strong>*</td>
</tr>
<tr>
<td>Asian</td>
</tr>
<tr>
<td>Asian &amp; Latinx/Hispanic (non-White)</td>
</tr>
<tr>
<td>Asian &amp; Latinx/Hispanic (White)</td>
</tr>
<tr>
<td>Asian &amp; Pacific Islander/Native Hawaiian</td>
</tr>
<tr>
<td>Asian &amp; White &amp; Multiracial</td>
</tr>
<tr>
<td>Asian &amp; White</td>
</tr>
<tr>
<td>Asian &amp; Multiracial</td>
</tr>
<tr>
<td>Black/of African descent</td>
</tr>
<tr>
<td>Middle Eastern/North African (MENA) (Non-White)</td>
</tr>
<tr>
<td>100% (n=114)</td>
</tr>
<tr>
<td>.9% (n=1)</td>
</tr>
<tr>
<td>.9% (n=1)</td>
</tr>
<tr>
<td>2.6% (n=3)</td>
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<tr>
<td>9.6% (n=11)</td>
</tr>
<tr>
<td>3.5% (n=4)</td>
</tr>
<tr>
<td>.9% (n=1)</td>
</tr>
<tr>
<td>0</td>
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<tr>
<td>0</td>
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</tbody>
</table>
Native American/American Indian/Alaskan Native/Indigenous

Ethnic region*
- Asian American, no ethnic region reported 4.3% (n=5)
- South Asian 13.9% (n=16)
- Southeast Asian 36.0% (n=41)
- East Asian 49.2% (n=56)

Generational Status
- 1st gen (moved >16yo) 1.7% (n=2)
- 1.5 gen (moved <=16yo) 20.9% (n=24)
- 2nd gen (born in US, parent/s immigrated) 67.8% (n=78)
- 3rd+ gen (self & parents born in US) 7.0% (n=8)

Taking psychotropic medication
- Yes 13.0% (n=15)
- No 87.0% (n=100)

Previous psychotherapy
- Yes 55.7% (n=64)
- No 44.3% (n=51)

*Select all item

1 Only participants who identified ethnically or racially as Asian were included. Participants who identified races in addition to Asian were not excluded

Table 2
Sample Subgroups of Ethnic Region by Generational Status

<table>
<thead>
<tr>
<th>Generational Status</th>
<th>South Asian</th>
<th>Southeast Asian</th>
<th>East Asian</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st gen</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1.5 gen</td>
<td>8</td>
<td>4</td>
<td>11</td>
<td>24</td>
</tr>
<tr>
<td>2nd gen</td>
<td>8</td>
<td>34</td>
<td>39</td>
<td>78</td>
</tr>
<tr>
<td>3rd+ gen</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>41</td>
<td>56</td>
<td></td>
</tr>
</tbody>
</table>
Procedures

After completing Informed Consent on Qualtrics, participants completed a pre-test questionnaire of measures, including:

- Symptom measures (Somatic Symptom Scale-8, SSS-8; Depression, Anxiety, Stress Scales-21 item, DASS-21)
- Help-seeking stigma measures (Stigma Scale for Receiving Psychological Help, SSRPH; Perceptions of Stigmatization by Others for Seeking Help, PSOSH; and Self-Stigma of Seeking Help, SSOSH)
- Help seeking attitudes measures (Mental Help Seeking Attitudes Scale, MHSAS)
- Help-seeking intentions measures (General Help-Seeking Questionnaire, GHSQ).

Participants then proceeded to reading and listening to their first condition, culturally adapted or generic Eurocentric. All participants completed both conditions and presentation order was counterbalanced through random assignment at the time of consent through the survey platform. The first presented condition is Time 1 and the second presented condition is Time 2. Group 1 received the culturally adapted messaging condition first, followed by the generic Eurocentric messaging condition. Group 2 received the generic Eurocentric messaging condition first followed by the culturally adapted messaging condition.

After the first presented condition (Time 1), participants completed questionnaires of message feedback, as well as repetitions of measures of help-seeking stigma, attitudes, and intentions. Questionnaires of help-seeking stigma, attitudes, and intentions were only collected before and after Time 1, regardless of which condition was presented. Next, participants watched a 5-minute video on desk stretches (linked here) to serve as a neutral
activity break between conditions. Participants then completed the second presented condition (Time 2), questionnaires of message feedback, post-test open-ended feedback, and a post-test questionnaire, including Asian American values (AAVS-M), Confucian Values Scale-Saving Face subscale (CVS-SF), self-construal (SCS), and demographics. Finally, participants were offered a choice of compensation for PSYCH 101 credit or entry into a raffle of $50. They then received debriefing information. See Appendix A for a diagram of the study design and related hypotheses, and Appendix B for a table of the order of measures.

Message conditions

Participants completed both conditions, reading and listening to narrated vignettes embedded with messages. These vignettes were developed by the author based on literature and stigma programs implemented in the U.S, and in consultation with experts. Each condition functions as one unit, but included three vignettes, averaging 186 words per vignette; thus, participants read and heard vignettes in the same order within that condition. Similar to models of stigma reduction programs used in the U.S., conditions included a struggle with lived experience of depression and anxiety, seeking treatment, and the positive impacts of treatment, including the speaker’s empowerment to attain goals (Rao et al., 2007). The message conditions incorporated both contact (i.e., exposure to lived experience) and education strategies, as indicated by research that found both strategies effective (Griffiths et al., 2014; Mehta et al., 2015). Messaging aimed to disconfirm stigma beliefs (Ashton et al., 2018; Corrigan & Kosyluk, 2013) and provide values-based motivation for help-seeking. Specific key messages across both conditions were drawn from recommendations by Ashton and colleagues (2018) including: mental illness is common and indiscriminate, recovery is
possible and common, people and their experiences of mental illness vary widely (i.e., they’re heterogenous), the causes of mental illness are complex, and no one is just a diagnosis.

Intentional incorporation of values served to frame mental illness and help-seeking in a culturally meaningful context and enhance salience and receptivity for participants, specifically that seeking help for mental health and recovery can support values-congruent behaviors and mitigate anticipated social costs of impaired functioning (Abdullah & Brown, 2011; Rimer & Kreuter, 2006). Participants were informed that feedback on these stories and messages would help investigators “learn what will be most helpful to better support other students having similar experiences,” quoted from the instructions that were provided to participants.

Generic Eurocentric Messages

Generic Eurocentric messages relevant for anxiety and depression were extracted by the author from non-adapted mental health stigma research (Ashton et al., 2018; Corrigan & Kosyluk, 2013) as well as programs implemented in the U.S., including the National Alliance of Mental Illness (NAMI; e.g., “In Your Own Voice,” “Stigma Free,” and “Cure Stigma” initiatives) and the California state-wide Mental Health Movement (e.g., “Each Mind Matters,” “Walk in Our Shoes,” and “Directing Change” initiatives), which used a combination of various programs, both education and contact, in vivo and media-based (Collins et al., 2015). Messages incorporating Eurocentric values in the current study were applied similarly as programs implemented in the U.S.; however, no previous research has
measured endorsement of Eurocentric values in generic, non-adapted interventions. Generic Eurocentric messages targeting stigma or help-seeking beliefs included: “Anxiety and depression are more common than you think”, “I’m not alone. Many people struggle with anxiety and depression” and “I am not to blame for anxiety and depression.” Generic Eurocentric values-based messages motivating help-seeking specifically targeted individualistic values and independent self-construal; for example, “Therapy can support me in my goals and life satisfaction” and “Therapy can support me in pursuing my interests, dreams, and passions.” See Appendix C for a table presenting this condition and corresponding targeted values.

**Culturally Adapted Messages**

Culturally adapted messages relevant for anxiety and depression were extracted by the author from themes in the Asian American mental health stigma literature as well as some culturally adapted programming implemented in the U.S., including the “Asian/Pacific Islander” collection of California’s “Each Mind Matters” initiative and NAMI’s “MH101 Cultural Video: Asian American & Pacific Islander.” For example, culturally adapted messages incorporated the five principal messages from Han and colleagues’(2014) stigma intervention, Tam An. These principal messages included:

1. “Mental health is a part of every community and family,”
2. “Mental illness is real and must be acknowledged,”
3. “No one is to be blamed,”
4. “Mental illness can be treated,”
5. “Resources exist and treatment works.”
Culturally adapted messages targeting stigma or help-seeking beliefs included some overlap with generic Eurocentric messages as well as unique messages: for example, “Anxiety and depression are real health problems, and they’re treatable” and “Anxiety and depression are more common than many realize, and I’m not alone in experiencing them” targeted similar beliefs across conditions (generic Eurocentric and culturally adapted). On the other hand, “Getting help isn’t a sign of weakness, laziness, or not trying hard enough. Therapy can even strengthen self-discipline” targeted beliefs that appeared more salient in the literature on stigma in Asian Americans, such as the belief that mental illness is due to character deficit or weakness. Based on culturally adapted programs in the U.S. as well as research (e.g., Han et al., 2014, 2017; Yang, Chen, et al., 2014; Yang, Lai, et al., 2014), culturally adapted values-based messages motivating help-seeking targeted the following Asian American values: collectivism, family recognition through achievement, emotional self-control, conformity to norms, and interdependent self-construal. Example messages included: “Therapy can help improve relationships with family and friends. It can help me to better be there for them, put them first, communicate better, and stay connected,” “Therapy can support me in trying to make my family proud by helping me manage worries so I can do my best in school and in my career,” and “Therapy can help me to express gratitude for my family and all they’ve done for me by genuinely feeling and doing well.” See Appendix C for a table presenting this condition and corresponding targeted values.
Measures

Within-subjects Aims (Culturally adapted vs. generic Eurocentric conditions, regardless of time presented)

Outcomes.

Message feedback. Likert feedback to assess message acceptability included ratings (1: strongly disagree; 7: strongly agree) of believability, persuasiveness, agreement, relatability, effectiveness, consistency of the message with values (both participants’ values and those of their family and friends), and intention to tell a friend following each condition. Items were presented as follows: “As a whole…

1. I find these stories believable.
2. I find these stories relatable.
3. I find these stories persuasive about getting help when you’re struggling.
4. I agree with the messages in these stories.
5. The messages in these stories are consistent with my values.
6. The messages in these stories are consistent with the values of my family and friends.
7. If I knew a friend was struggling, I would tell them about the messages in these stories.
8. The speakers in these stories seem trustworthy.”

To reduce participant burden, likert ratings for specific messages (10 per condition) did not measure ratings on all eight dimensions, but only assessed persuasiveness, consistency with participant values, and consistency with values of family and friends. Analyses were
conducted on individual items, and thus, internal consistency was not analyzed for this measure.

Open-ended questions following each condition included:

- “What did you think of these stories?”,
- “What take-home messages did you get from these stories?”, and
- “What parts of these stories have you experienced yourself or seen someone else experience? Please specify if you’re describing your own experience or someone else’s experience.”

Additional open-ended feedback at the end of the study included:

- “What parts of these stories would motivate you to seek help if you were struggling?”,
- “What was missing from these stories that would motivate you to seek help if you were struggling?”,
- “Did anything in the stories connect to your values? If so, please describe.”,
- “Did anything in the stories feel disconnected from your values? If so, please describe.”,
- “Did anything about these stories affect your attitudes or beliefs about therapy or counseling? If so, what did?” and
- “We want to acknowledge the toll of this particular moment due to the global pandemic, experiences of racism, and election-related stress. If you would like to share any of your experiences, please describe below.”
The question about experiences of racism, election-related stress, and general experiences during the global pandemic functioned to validate participant experiences and were not used in any analyses for this study, although they might contribute to future research questions. Similarly, responses to the open-ended questions were not in the scope of the current dissertation and so are not analyzed here, and will instead be analyzed separate from the dissertation.

**Potential Correlates.**

*The Depression, Anxiety, Stress Scales (DASS) - 21 item version.* The Depression, Anxiety, Stress Scales-21 (DASS-21; Lovibond & Lovibond, 1995) is a 21-item self-report measure of anxiety and depression symptoms including 3 sub-scales: depression, anxiety (i.e., anxious arousal), and stress (i.e., general anxiety). On a scale from 0 (Did not apply to me at all) to 3 (Applied to me very much, or most of the time), participants are asked to rate the extent to which each state has been experienced in the past week. An example item of the depression subscale is “I felt I had nothing to look forward to.” An example item of the anxiety subscale is “I felt close to panic.” An example of the stress subscale is “I found it hard to wind down.” The DASS-21 has been shown to have adequate construct validity, internal consistency, temporal stability, and strong reliabilities within community and clinical samples (Henry & Crawford, 2005). The sub-scales of the DASS-21 have also demonstrated adequate distinction between symptoms of depression (depression subscale), anxious arousal (stress subscale), and generalized anxiety (anxiety subscale) (Brown et al., 1997). Further, the DASS-21 has shown to have adequate internal consistency in Asian American college student samples (depression: $\alpha=.84$, anxiety: $\alpha=.74$, stress: $\alpha=.87$) (Norton, 2007). I chose
this measure because it provides a continuous measure of distinct symptoms that may be related to responses to anti-stigma messages. Symptoms were analyzed as potential correlates of message acceptability outcomes. In the current study, internal consistencies were acceptable across the subscales (depression: $\alpha=.91$, anxiety: $\alpha=.76$, stress: $\alpha=.84$).

*The Somatic Symptom Scale–8 (SSS-8).* The Somatic Symptoms Scale-8 (SSS-8; Gierk et al., 2014) is an 8-item self-report measure of participants’ somatic symptoms of distress, assessing stomach/bowel problems, back pain, pain in arms, legs, or joint, headaches, chest pain or shortness of breath, dizziness, feeling tired/low energy, and trouble sleeping. On a scale from 0 (not at all) to 4 (very much), participants rate how much they were “bothered” by the listed problems in the past 7 days. The authors report good reliability (Cronbach $\alpha = 0.81$). Research has not reported on reliability in Asian American populations; however, the SSS-8 has been found to be reliable in Japanese ($\alpha=.86$) and Korean ($\alpha=.86$) international samples (Matsudaira et al., 2017; C. M. Yang et al., 2020). This measure was included due to research suggesting that Asian populations may report distress somatically (Saint Arnault & Kim, 2008). Symptoms were analyzed as potential correlates of message acceptability outcomes. In the current study, internal consistency was good ($\alpha=.81$).

*Self-Construal Scale (SCS; Singelis, 1994).* The Self-Construal Scale (SCS; Singelis, 1994) is a 24-item scale to measure participants’ independent and interdependent self-construal. Items are scored on a Likert from 1 (strongly disagree) to 5 (strongly agree). This measure has shown to be reliable in a sample of Asian American college students (interdependent self-construal, $\alpha = 0.86$ for South Asian Americans and $\alpha = 0.79$ for East Asian Americans; independent self-construal, $\alpha = 0.71$ for South Asian Americans and $\alpha = 0.75$ for East Asian
Americans (Chaudhry & Chen, 2018). This measure allowed examination of self-construal as a correlate of message acceptability. In the current study, internal consistencies were acceptable across the subscales (interdependent self-construal: $\alpha=.83$, independent self-construal: $\alpha=.78$).

**Asian American Values Scale-Multidimensional (AAVS-M).** The Asian American Values Scale-Multidimensional (AAVS-M; Kim, Li, & Ng, 2005), is a 42-item self-report measure on a Likert scale from 1 (strongly disagree) to 7 (strongly agree). The five sub-scales include Collectivism, Conformity to Norms, Emotional Self-Control, Family Recognition through Achievement, and Humility. However, the current study does not target the value of Humility in the culturally adapted messaging, and thus, this subscale was not included. The AAVS-M has shown to have good internal consistency for all sub-scales in Asian American populations: Collectivism ($\alpha = .80$ to .86), Conformity to Norms ($\alpha = .79$ to .90), Emotional Self-Control ($\alpha = .80$ to .89), Family Recognition Through Achievement ($\alpha = .90$ to .95) (B. S. K. Kim et al., 2005). Authors also found evidence for concurrent and discriminant validity.

This measure enabled examination of Asian American values as correlates of message acceptability. In the current study, internal consistencies were acceptable across the subscales (Collectivism: $\alpha=.78$, Conformity to Norms: $\alpha=.70$, Emotional Self-Control: $\alpha=.80$, Family Recognition Through Achievement: $\alpha=.95$).

**Confucian Values Scale, Saving Face subscale (CVS-SF).** The Confucian Values Scale (Monkhouse et al., 2013) is a 24-item scale measuring Confucian Values on a 7-point Likert Scale from -3 (strongly disagree) to +3 (strongly agree), of which the current study only included the 5-item Saving Face subscale. The authors found this subscale to have good
internal consistency ($\alpha = .80$) in respondents across four Asian cities (Tokyo, Hanoi, Beijing and Singapore). A study has also found good internal consistency for the entire scale in Asian Americans ($\alpha = .80$; Liu, 2018). This measure allowed examination of values for saving face as correlates of message acceptability. In the current study, internal consistency was good for this subscale ($\alpha = .81$).

*UMB Comprehensive Demographic Questionnaire* (adapted from Suyemoto et al., 2016) is a self-report measure that assesses numerous demographic characteristics including age, gender, sexual orientation, race, ethnicity, income level, education, immigration status, and medication and therapy history. Demographic variables were analyzed as potential correlates of message acceptability outcomes.

**Between-subjects Aims (Group 1 vs. 2: Time 1 presentation of Culturally adapted vs. generic Eurocentric conditions)**

**Impacts on help-seeking stigma, attitudes, and intentions**

*Stigma Scale for Receiving Psychological Help (SSRPH)*. The Stigma Scale for Receiving Psychology Help (SSRPH; Komiya, Good, & Sherrod, 2000) is a 5-item self-report measure assessing the respondent’s perceptions of general public stigma for seeking help for mental health, on a Likert scale from 0 (strongly disagree) to 3 (strongly agree). Higher scores represent greater perceived public stigma for receiving psychological help. Example items include “Seeing a psychologist for emotional or interpersonal problems carries social stigma,” and “People will see a person in a less favorable way if they come to know that he or she has seen a psychologist.” Internal consistency in Asian American college students has been found to be good, $\alpha = .84$ (Choi & Miller, 2014). Research has demonstrated relations
between scores on SSRPH, Asian values, and help-seeking attitudes, but has not yet documented changes in SSRPH scores in brief online interventions (Choi & Miller, 2014; Shea & Yeh, 2008). The current study explored potential changes in help-seeking stigma between pre-test and after the first presented condition. In the current study, internal consistencies were acceptable both at pre- and post- Time 1 (pre-SSRPH: $\alpha=.79$, post-SSRPH: $\alpha=.86$).

*Perceptions of Stigmatization by Others for Seeking Help (PSOSH).* The Perceptions of Stigmatization by Others for Seeking Help (PSOSH; Vogel, Wade, & Ascheman, 2009) is a 5-item self-report measure assessing stigma by one’s social network when seeking help for mental health on a Likert scale from 1 (not at all) to 5 (a great deal). Higher scores indicate greater perceived stigmatization from one’s social network. Instructions ask participants to rate the likelihood that people they “interact with” would react in particular ways to the respondent seeking counseling, such as “think bad things of you” or “think of you in a less favorable way.” Construct validity of PSOSH scores was demonstrated with theory-consistent relationships with public stigma for seeking counseling, self-stigma for seeking counseling, and public stigma of mental illness measure. Internal consistency in Asian American college students has been found to be good, $\alpha = .92$ (Choi & Miller, 2014). Research has demonstrated relations between scores on PSOSH, Asian values, and help-seeking attitudes, but has not yet documented changes in PSOSH scores in brief online interventions (Choi & Miller, 2014). The current study explored potential changes in help-seeking stigma between pre-test and after the first presented condition. In the current study,
internal consistencies were excellent at both at pre- and post- Time 1 (pre-PSOSH: $\alpha=.93$, post-PSOSH: $\alpha=.94$).

*Self-Stigma of Seeking Help (SSOSH).* The Self-Stigma of Seeking Help (SSOSH; Vogel, Wade, & Haake, 2006) is a 10-item self-report measure assessing self-stigma (e.g., internalized stigma) when seeking help for mental health on a Likert scale from 1 (strongly disagree) to 5 (strongly agree). Higher scores reflect higher self-stigma. Examples of items include “I would feel inadequate if I went to a therapist for psychological help,” and “It would make me feel inferior to ask a therapist for help.” Construct validity evidence for SSOSH scores has demonstrated theory-consistent relationships with public stigma and attitudes toward seeking professional help. Internal consistency in Asian American college students has been found to be good, $\alpha = .86$ (Choi & Miller, 2014). Scores on the SSOSH have been shown to be sensitive to change in a brief online intervention (Lannin et al., 2019).

The current study explored potential changes in help-seeking stigma between pre-test and after the first presented condition. In the current study, internal consistencies were very good both at pre- and post- Time 1 (pre-SSOSH: $\alpha=.87$, post-SSOSH: $\alpha=.90$).

*Mental Help Seeking Attitudes Scale (MHSAS).* The Mental Help Seeking Attitudes Scale (MHSAS; Hammer et al., 2018) is a 9-item self-report measure assessing participants’ attitudes about seeking help from a mental health professional if they had a mental health concern. Evaluative descriptors of seeking help are displayed at opposite poles (e.g., useless to useful, ineffective to effective, desirable to undesirable), with ratings from 0 to 3, zero representing an undecided opinion and 3 representing strongest opinion. This measure has not yet been tested in larger Asian American populations; however internal consistency was
shown to be good in an adult community sample, n = 285, where 2% of participants were described as “Asian American/Pacific Islander” (α range from .93 to .94; Hammer et al., 2018). Research has not documented changes in MHSAS scores in brief online interventions; however, changes have been documented in other measures of this construct, e.g., the Inventory of Attitudes toward Mental Health Services (IAMHS) and Attitudes Toward Seeking Help for Depression (Clough et al., 2019; Lienemann & Siegel, 2018). The current study explored potential changes in help-seeking attitudes between pre-test and after the first presented condition. In the current study, internal consistencies were excellent both at pre- and post-Time 1 (pre-MHSAS: α=.95, post-MHSAS: α=.94).

General Help-Seeking Questionnaire (GHSQ). The General Help-Seeking Questionnaire (GHSQ; Wilson, Deane, Ciarrochi, & Rickwood, 2005) is a 14-item self-report measure that assesses the likelihood that the respondent will seek help for a personal or emotional problem during the next 4 weeks from various sources, including partner, friend, mental health professional, etc. It’s measured on a Likert scale from 1 (extremely unlikely) to 7 (extremely likely). This measure has shown good internal consistency in Asian American college students (α = 88 in a sample of n = 198, 30.8% identified as “Asian/Asian American”) (Kosyluk et al., 2016). Scores on the GHSQ have been shown to be sensitive to change in a brief online intervention (Lienemann & Siegel, 2018). The current study explored potential changes in intention to seek help from a “Mental Health Professional (e.g., school counselor, psychologist, psychiatrist)” between pre-test and after the first condition. Analyses only included this single item, and thus internal consistency analyses were not conducted for this measure.
Help-seeking single item. A single-item 7-point Likert measure, “If I knew a friend was struggling, I would suggest they seek help from a counselor or therapist” was included to explore the potential impact of the messages on participants’ willingness to encourage friends help-seeking. The current study explored potential changes in help-seeking intentions between pre-test and after the first presented condition. Internal consistency analyses were not conducted for this single-item.
CHAPTER 4

RESULTS

Sample Normality and Equivalence

For descriptive statistics of primary study variables, see Table 3. Tests of normality and skewness on all primary study variables, determined by values greater than standard error * 2, found the following variables positively skewed: DASS-21 Depression, DASS-21 Anxiety, pre-test public stigma (pre-SSRPH), pre-test close-other stigma (pre-PSOSH), pre-test self-stigma (pre-SSOSH), and Independent Self-Construal, as well as the following negatively skewed variables: pre-test help-seeking attitudes (pre-MHSAS), pre-test likelihood of recommending therapy to a friend, Saving Face subscale (CVS-SF), and residualized gain scores for acceptability ratings: Relatable, Persuasive, Tell a Friend, and Trustworthy Speaker. Square root and logarithmic transformations were conducted to resolve skewness. Square root transformations mitigated skewness in DASS-21 Depression, DASS-21 Anxiety, pre-test self-stigma (pre-SSOSH), pre-test help-seeking attitudes (pre-MHSAS), pre-test likelihood of recommending therapy to a friend, and residualized gain scores for acceptability rating, Tell a Friend. Logarithmic transformations mitigated skewness for pre-test close-other stigma (pre-PSOSH), Independent Self-Construal, and residualized gain scores for acceptability ratings: Relatable, Persuasive, and Trustworthy Speaker.
No primary study variables violated homogeneity of variance by randomly assigned condition (culturally adapted first vs. generic Eurocentric first).

Relevant for Hypothesis 3 which includes a between-group ANCOVA, the two randomized groups were equivalent on almost all study variables, with the following two exceptions. The Conformity to Norms subscale of AAVS was significantly higher in the CA first group ($M = 28.7, SD = 6.5, n = 62$) than the GE first group ($M = 25.9, SD = 5.8, n = 52$), $F(1,112) = 5.65, p=.019, \eta^2 = .048$. Secondly, more respondents were currently taking psychotropic medications in the GE first group (Yes = 11, No = 42) vs. the CA first group (Yes = 4, No = 58), $X^2(1,115) = 5.15, p=.028$.

Please note that no multiple-comparison corrections were used.
<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
<th>Item mean</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms: SSS-8</td>
<td>115</td>
<td>0</td>
<td>24</td>
<td>10.50</td>
<td>6.34</td>
<td></td>
<td>Medium severity</td>
</tr>
<tr>
<td>Symptoms: DASS-21 Depression</td>
<td>115</td>
<td>0</td>
<td>42</td>
<td>15.53</td>
<td>11.34</td>
<td></td>
<td>Moderate severity</td>
</tr>
<tr>
<td>Symptoms: DASS-21 Anxiety</td>
<td>115</td>
<td>0</td>
<td>34</td>
<td>10.72</td>
<td>8.12</td>
<td></td>
<td>Moderate severity</td>
</tr>
<tr>
<td>Symptoms: DASS-21 Stress</td>
<td>115</td>
<td>0</td>
<td>38</td>
<td>16.70</td>
<td>9.68</td>
<td></td>
<td>Mild severity</td>
</tr>
<tr>
<td>Pre-test Public Stigma: pre-SSRPH</td>
<td>115</td>
<td>0</td>
<td>15</td>
<td>5.22</td>
<td>3.19</td>
<td>1.30</td>
<td>&quot;Disagree&quot; to &quot;Agree&quot; with presence of public stigma</td>
</tr>
<tr>
<td>Post-test Public Stigma: post-SSRPH</td>
<td>115</td>
<td>0</td>
<td>15</td>
<td>5.98</td>
<td>3.47</td>
<td>1.50</td>
<td>&quot;Disagree&quot; to &quot;Agree&quot; with presence of public stigma</td>
</tr>
<tr>
<td>Pre-test Close-other stigma: pre-PSOSH</td>
<td>115</td>
<td>5</td>
<td>25</td>
<td>9.97</td>
<td>5.04</td>
<td>1.99</td>
<td>&quot;A little&quot; presence of close-other stigma</td>
</tr>
<tr>
<td>Post-test Close-other stigma: post-PSOSH</td>
<td>115</td>
<td>5</td>
<td>25</td>
<td>9.41</td>
<td>4.98</td>
<td>1.88</td>
<td>&quot;A little&quot; presence of close-other stigma</td>
</tr>
<tr>
<td>Pre-test Self-stigma: pre-SSOSH</td>
<td>96</td>
<td>10</td>
<td>50</td>
<td>24.59</td>
<td>8.01</td>
<td>2.46</td>
<td>&quot;Disagree&quot; to &quot;Agree and Disagree equally&quot; with self-stigma</td>
</tr>
<tr>
<td>Post-test Self-stigma: post-SSOSH</td>
<td>93</td>
<td>10</td>
<td>50</td>
<td>23.12</td>
<td>8.41</td>
<td>2.31</td>
<td>&quot;Disagree&quot; to &quot;Agree and Disagree equally&quot; with self-stigma</td>
</tr>
<tr>
<td>Pre-test Help-Seeking Attitudes: pre-MHSAS</td>
<td>98</td>
<td>1</td>
<td>7</td>
<td>5.77</td>
<td>1.21</td>
<td></td>
<td>Favorable attitudes</td>
</tr>
<tr>
<td>Post-test Help-Seeking Attitudes: post-MHSAS</td>
<td>98</td>
<td>1</td>
<td>7</td>
<td>6.02</td>
<td>1.04</td>
<td></td>
<td>Favorable attitudes</td>
</tr>
<tr>
<td>Pre-test Help-Seeking Intentions: pre-GHSQ, mental health professional item</td>
<td>115</td>
<td>1</td>
<td>7</td>
<td>3.85</td>
<td>1.95</td>
<td></td>
<td>&quot;Somewhat unlikely&quot; to &quot;Neutral&quot; intentions</td>
</tr>
<tr>
<td>Post-test Help-Seeking Intentions: post-GHSQ, mental health professional item</td>
<td>114</td>
<td>1</td>
<td>7</td>
<td>3.90</td>
<td>1.91</td>
<td></td>
<td>&quot;Somewhat unlikely&quot; to &quot;Neutral&quot; intentions</td>
</tr>
<tr>
<td>Pre-test Friend therapy recommendation</td>
<td>115</td>
<td>1</td>
<td>7</td>
<td>5.75</td>
<td>1.29</td>
<td></td>
<td>&quot;Somewhat agree&quot; to &quot;Agree&quot; with recommending therapy to a struggling friend</td>
</tr>
</tbody>
</table>
Hypothesis 1.1

I hypothesized that repeated measures ANOVAs of condition (culturally adapted versus generic Eurocentric) would reveal that the culturally adapted message condition was rated significantly more acceptable (i.e., believability, relatability, persuasiveness, agreement, consistency with “my [participant] values”, consistency with the values of “my family and friends”, and intention to tell a friend). However, no significant differences between acceptability items were found, with less than small effect sizes for all analyses. See Tables 4 and 5 for ANOVA statistics and descriptive statistics of acceptability ratings.
Table 4
Repeated Measures ANOVA of Condition on Acceptability Ratings

<table>
<thead>
<tr>
<th>Acceptability Rating</th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Believable</td>
<td>1,113</td>
<td>0.4</td>
<td>0.52</td>
<td>0.004</td>
</tr>
<tr>
<td>2. Relatable</td>
<td>1,113</td>
<td>0.2</td>
<td>0.62</td>
<td>0.002</td>
</tr>
<tr>
<td>3. Persuasive</td>
<td>1,113</td>
<td>0.2</td>
<td>0.63</td>
<td>0.002</td>
</tr>
<tr>
<td>4. Agree</td>
<td>1,113</td>
<td>2.3</td>
<td>0.13</td>
<td>0.02</td>
</tr>
<tr>
<td>5. Consistent with my values</td>
<td>1,113</td>
<td>0</td>
<td>0.93</td>
<td>&lt;.000</td>
</tr>
<tr>
<td>6. Consistent with values of family &amp; friends</td>
<td>1,112</td>
<td>0.3</td>
<td>0.58</td>
<td>0.003</td>
</tr>
<tr>
<td>7. Tell a friend</td>
<td>1,113</td>
<td>0</td>
<td>0.95</td>
<td>&lt;.000</td>
</tr>
<tr>
<td>8. Trustworthy speaker</td>
<td>1,113</td>
<td>0.2</td>
<td>0.67</td>
<td>0.002</td>
</tr>
</tbody>
</table>

Note. All acceptability rating items are transformed.

Table 5
Descriptive Statistics of Condition Acceptability Ratings

<table>
<thead>
<tr>
<th></th>
<th>Culturally Adapted Condition</th>
<th>Generic Eurocentric Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Min</td>
</tr>
<tr>
<td>Believable</td>
<td>114</td>
<td>3</td>
</tr>
<tr>
<td>Relatable</td>
<td>114</td>
<td>1</td>
</tr>
<tr>
<td>Persuasive</td>
<td>114</td>
<td>1</td>
</tr>
<tr>
<td>Agree</td>
<td>114</td>
<td>2</td>
</tr>
<tr>
<td>Consistent with my values</td>
<td>114</td>
<td>1</td>
</tr>
<tr>
<td>Consistent with values of family and friends</td>
<td>114</td>
<td>1</td>
</tr>
<tr>
<td>Tell a friend</td>
<td>114</td>
<td>1</td>
</tr>
<tr>
<td>Trustworthy speaker</td>
<td>114</td>
<td>2</td>
</tr>
</tbody>
</table>

Hypothesis 1.2

To explore whether specific messages (as opposed to the condition as a whole) vary in their acceptability, I examined means to describe acceptability ratings for individual
messages within condition, across the following acceptability dimensions: “Persuasive about getting help when you’re struggling,” “Consistent with my values,” and “Consistent with the values of my friends and family” (see Tables 6 and 7). On a scale from 1 to 7 (1: strongly disagree, 4: equally agree and disagree, 7: strongly agree), all means ranged from 4.24 to 6.02. The most striking pattern was that all messages were rated similarly and highly (i.e., above “equally agree and disagree”).

In the culturally adapted condition, means for “Persuasive” ranged from 5.27 to 6.02, means for “Consistent with my values” ranged from 5.07 to 5.99, and means for “Consistent with family and friends’ values” ranged from 4.24 to 4.67. In the generic Eurocentric condition, means for “Persuasive” ranged from 5.58 to 5.97, means for “Consistent with my values” ranged from 5.48 to 5.92, and means for “Consistent with family and friends’ values” ranged from 4.32 to 4.80.
### Table 6

**Culturally Adapted Message-Specific Acceptability Ratings**

<table>
<thead>
<tr>
<th>Message</th>
<th>Persuasive</th>
<th>Consistent with my values</th>
<th>Consistent with family &amp; friends values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N  Min Max Mean  SD</td>
<td>Min Max Mean  SD</td>
<td>Min Max Mean  SD</td>
</tr>
<tr>
<td>“Anxiety and depression are real health problems, and they’re treatable.”</td>
<td>114 2 7 5.88 1.07</td>
<td>1 7 5.99 1.19</td>
<td>1 7 4.45 1.85</td>
</tr>
<tr>
<td>“Anxiety and depression are more common than many realize, and I’m not alone in experiencing them.”</td>
<td>114 1 7 5.82 1.19</td>
<td>1 7 5.91 1.25</td>
<td>1 7 4.59 1.76</td>
</tr>
<tr>
<td>“Instead of making emotions worse, therapy can teach me how to not let emotions take control of my actions.”</td>
<td>114 1 7 5.83 1.34</td>
<td>1 7 5.76 1.29</td>
<td>1 7 4.51 1.82</td>
</tr>
<tr>
<td>“Therapy is for anyone.”</td>
<td>114 1 7 5.88 1.28</td>
<td>1 7 5.80 1.51</td>
<td>1 7 4.24 1.92</td>
</tr>
<tr>
<td>“Getting help isn’t a sign of weakness, laziness, or not trying hard enough. Therapy can even strengthen self-discipline.”</td>
<td>114 1 7 6.02 1.24</td>
<td>1 7 5.73 1.41</td>
<td>1 7 4.27 1.92</td>
</tr>
<tr>
<td>“Sharing emotions with a therapist is not a burden on them and is part of the process of understanding my experiences.”</td>
<td>114 1 7 5.98 1.33</td>
<td>1 7 5.90 1.34</td>
<td>1 7 4.67 1.73</td>
</tr>
<tr>
<td>“Therapy can help improve relationships with family and friends. It can help me to better be there for them, put them first, communicate better, and stay connected.”</td>
<td>114 1 7 5.96 1.26</td>
<td>1 7 5.74 1.34</td>
<td>1 7 4.56 1.83</td>
</tr>
<tr>
<td>“No one is to be blamed for anxiety and depression.”</td>
<td>114 1 7 5.80 1.42</td>
<td>1 7 5.69 1.48</td>
<td>1 7 4.38 1.74</td>
</tr>
<tr>
<td>“Therapy can support me in trying to make my family proud by helping me manage worries so I can do my best in school and in my career.”</td>
<td>114 1 7 5.62 1.62</td>
<td>1 7 5.36 1.66</td>
<td>1 7 4.41 1.79</td>
</tr>
</tbody>
</table>
Table 7
Generic Eurocentric Message-Specific Acceptability Ratings

<table>
<thead>
<tr>
<th>Message</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Anxiety and depression are more common than you think.”</td>
<td>115</td>
<td>1</td>
<td>7</td>
<td>5.76</td>
<td>1.37</td>
<td>1</td>
<td>7</td>
<td>5.92</td>
<td>1.28</td>
<td>1</td>
<td>7</td>
<td>4.47</td>
<td>1.80</td>
</tr>
<tr>
<td>“I’m not alone. Many people struggle with anxiety and depression.”</td>
<td>115</td>
<td>2</td>
<td>7</td>
<td>5.88</td>
<td>1.16</td>
<td>1</td>
<td>7</td>
<td>5.92</td>
<td>1.21</td>
<td>1</td>
<td>7</td>
<td>4.58</td>
<td>1.74</td>
</tr>
<tr>
<td>“Treatment can help anxiety and depression.”</td>
<td>115</td>
<td>1</td>
<td>7</td>
<td>5.87</td>
<td>1.23</td>
<td>1</td>
<td>7</td>
<td>5.72</td>
<td>1.45</td>
<td>1</td>
<td>7</td>
<td>4.63</td>
<td>1.75</td>
</tr>
<tr>
<td>“Therapy is for anyone wanting to be healthy.”</td>
<td>115</td>
<td>1</td>
<td>7</td>
<td>5.80</td>
<td>1.30</td>
<td>1</td>
<td>7</td>
<td>5.64</td>
<td>1.45</td>
<td>1</td>
<td>7</td>
<td>4.32</td>
<td>1.81</td>
</tr>
<tr>
<td>“I am not to blame for anxiety and depression.”</td>
<td>115</td>
<td>1</td>
<td>7</td>
<td>5.58</td>
<td>1.57</td>
<td>1</td>
<td>7</td>
<td>5.48</td>
<td>1.58</td>
<td>1</td>
<td>7</td>
<td>4.38</td>
<td>1.83</td>
</tr>
<tr>
<td>“Therapy can help me cope and regain confidence in myself.”</td>
<td>115</td>
<td>1</td>
<td>7</td>
<td>5.87</td>
<td>1.25</td>
<td>1</td>
<td>7</td>
<td>5.63</td>
<td>1.45</td>
<td>1</td>
<td>7</td>
<td>4.53</td>
<td>1.81</td>
</tr>
<tr>
<td>“With support, people with anxiety and depression can thrive at school and work.”</td>
<td>115</td>
<td>1</td>
<td>7</td>
<td>5.97</td>
<td>1.16</td>
<td>1</td>
<td>7</td>
<td>5.87</td>
<td>1.27</td>
<td>1</td>
<td>7</td>
<td>4.74</td>
<td>1.78</td>
</tr>
<tr>
<td>“People with anxiety and depression can recover and stay well.”</td>
<td>115</td>
<td>1</td>
<td>7</td>
<td>5.83</td>
<td>1.37</td>
<td>1</td>
<td>7</td>
<td>5.76</td>
<td>1.42</td>
<td>1</td>
<td>7</td>
<td>4.80</td>
<td>1.66</td>
</tr>
<tr>
<td>“Therapy can support me in my personal goals and life satisfaction.”</td>
<td>115</td>
<td>1</td>
<td>7</td>
<td>5.80</td>
<td>1.28</td>
<td>1</td>
<td>7</td>
<td>5.56</td>
<td>1.48</td>
<td>1</td>
<td>7</td>
<td>4.41</td>
<td>1.75</td>
</tr>
<tr>
<td>“Therapy can support me in pursuing my interests, dreams, and passions.”</td>
<td>115</td>
<td>1</td>
<td>7</td>
<td>5.69</td>
<td>1.42</td>
<td>1</td>
<td>7</td>
<td>5.54</td>
<td>1.51</td>
<td>1</td>
<td>7</td>
<td>4.38</td>
<td>1.80</td>
</tr>
</tbody>
</table>
**Hypothesis 2.1**

It was hypothesized that correlations would show that differences in acceptability between conditions (culturally adapted vs. generic Eurocentric messaging) regardless of order, calculated as residualized gain scores, would be associated with higher endorsement of targeted Asian American Values (i.e., collectivism, family recognition through achievement, emotional self-control, and conformity to norms subscales from the AAVS-M) and the saving face subscale from the CVS, as well as interdependent self-construal (SCS). Note that residualized gain scores with positive numbers indicate higher scores for the culturally adapted acceptability ratings (above that of the generic Eurocentric scores) and negative numbers indicates higher scores for the generic Eurocentric acceptability ratings (above that of the culturally adapted scores). Correlations found associations between some of these cultural values and residualized gain scores, indicating relations between values and different responses to a condition above and beyond the shared associations between them when statistically controlled (see Table 8). Transformed variables were used in analyses, though no different patterns of results were found between analyses using transformed and untransformed variables.

Interdependent Self-Construal was significantly positively correlated, with small to medium effect sizes, with the “Believable,” “Relatable,” “Persuasive,” “Agree,” and “Consistent with my values” acceptability items: $r=.28, p<.01$; $r=.29, p<.01$; $r=.19, p<.05$; $r=.23, p<.01$; and $r=.30, p<.01$ respectively. These correlations indicate that higher scores of interdependent self-construal were associated with higher ratings for the culturally adapted condition above and beyond the shared association with the generic Eurocentric condition.
The Emotional self-control subscale of the Asian American Values Scale was significantly negatively correlated, with small to medium effect sizes, with the “Agree” and “Consistent with my values” acceptability items, $r = -.22, p<.01$ and $r = -.20 p<.01$ respectively, indicating that stronger endorsement of Emotional self-control was associated with higher ratings of agreement and consistency with values for the generic Eurocentric condition above and beyond the shared association with the culturally adapted condition.

No significant correlations were found between residualized gain scores of acceptability ratings and the following cultural values variables: Independent Self-Construal, Collectivism subscale of AAVS, Family Recognition through Achievement subscale of AAVS, Conformity to Norms subscale of AAVS, and Saving Face subscale of CVS.

### Table 8

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Believabl e</th>
<th>Relatable</th>
<th>Persuasive</th>
<th>Agree</th>
<th>Consistent with my values</th>
<th>Consistent with family and friends' values</th>
<th>Tell a Friend</th>
<th>Trustworthy Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCS Interdependence</td>
<td>114</td>
<td>.28**</td>
<td>.29**</td>
<td>.19*</td>
<td>.21*</td>
<td>.23*</td>
<td>.30*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AAVS Emotional Self-Control</td>
<td>98</td>
<td></td>
<td></td>
<td></td>
<td>- .22*</td>
<td>-.20*</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** $p<.01$
* $p<.05$
1 Transformed variable

### Hypothesis 2.2

It was hypothesized that demographic variables (e.g., generational status, ethnicity, etc.), symptoms of depression and anxiety (SSS-8 & DASS-21), and pre-test help-seeking stigma (pre-SSRPH, pre-PSOSH, and pre-SSOSH), attitudes (pre-MHSAS), and intentions...
(pre-GHSQ) would be correlates of differential message acceptability. These analyses served to inform if message acceptability differed based on subgroups, and potentially informs future areas of research.

Correlations between residualized gain scores of acceptability ratings and other variables (demographics, symptoms, pre-test help-seeking stigma and attitudes) found associations potentially informing differential message acceptability (see Table 9). Anxiety (DASS-21) was negatively correlated, with small to medium effect size, with the “Agree” acceptability item, $r = -.22$, $p < .05$, indicating that higher scores of anxiety were associated with higher ratings of agreement for the generic Eurocentric condition when shared association with the culturally adapted condition was statistically controlled. Pre-test public stigma (pre-SSRPH) was negatively correlated, with small to medium effect sizes, with “Agree,” $r = -.25$, $p < .01$, “Consistent with values of my family and friends,” $r = -.26$, $p < .01$, and “Trustworthy speaker,” $r = -.23$, $p < .05$, acceptability items, such that greater pre-test public stigma was associated to higher ratings of those acceptability items in the generic Eurocentric condition above those of the culturally adapted condition. Similarly, pre-test close-other stigma (pre-PSOSH) was negatively correlated, with small to medium effect sizes, with the “Trustworthy speaker” acceptability item, $r = -.24$, $p < .05$, such that greater pre-test close-other stigma was associated with higher ratings of trust in the generic Eurocentric condition. Finally, pre-test likelihood to recommend a friend to therapy was positively associated, with a small to medium effect size, with the acceptability item, “Consistent with values of my family and friends,” $r = .24$, $p < .05$, such that greater likelihood
of recommending therapy was associated with higher ratings in the culturally adapted condition above and beyond the shared association with the generic Eurocentric condition.

No significant correlations were found between residualized gain scores of acceptability ratings and the following variables: age, somatic symptoms (SSS-8), depressive symptoms (DASS-21), stress (DASS-21), pre-test self-stigma (pre-SSOSH), pre-test help-seeking attitudes (pre-MHSAS), and pre-test help-seeking intentions (pre-GHSQ).

ANOVA of demographic subgroups on residualized gain scores of acceptability ratings found some significant differences based on subgroups (see Table 10). There was a significant difference, with a medium to large effect size, of generational status, $F(3, 107) = 3.05, p=.03, \eta^2 = .079$, such that those in the 1.5 generation group rated the acceptability item, “Consistent with my values,” higher in the culturally adapted condition ($M= .44$) and the 2nd generation group rated this item higher in the generic Eurocentric condition ($M= -.14$), $t(107) = 2.71, p = .008$, Cohen’s $d = .64$.

Regional ethnic differences, coded dichotomously as group or non-group membership where participants could identify with multiple regions, were also found. Participants identified as South Asian rated acceptability item, “Consistent with my values” higher in the generic Eurocentric condition compared with participants not identified as South Asian.

Southeast Asian participants rated acceptability items, “Believable,” $F(1,112) = 4.57, p=.04, \eta^2 = .038$, “Persuasive,” $F(1,112) = 5.06, p=.03, \eta^2 = .036$, “Agree,” $F(1,112) = 9.34, p=.003, \eta^2 = .081$, a medium to large effect size, “Consistent with my values,” $F(1,112) = 6.55, p=.01, \eta^2 = .056$, a medium effect size, and “Consistent with values of my family and friends,” $F(1,112) = 4.31, p=.04, \eta^2 = .037$, higher in the culturally adapted condition ($M$’s
East Asians rated acceptability item, “Consistent with values of my family and friends,” $(M= - .26)$ higher in the generic Eurocentric condition, $F(1,112) = 4.31, p = .04, \eta^2 = .037$.

In addition, ANOVAs found subgroup differences based on therapy history and presence of current psychotropic medications. Participants with a history of therapy rated acceptability item, “Believable” $(M=.15)$, higher in the culturally adapted condition, $F(1,112) = 4.72, p = .03, \eta^2 = .041$. Participants currently taking psychotropic medication rated acceptability item, “Consistent with the values of my family and friends” $(M= -.68)$, higher in the generic Eurocentric condition, $F(1,112) = 4.30, p = .04, \eta^2 = .037$.$^1$

No significant differences were found for gender (collapsed and coded as cis-man, cis-woman, and non-cis gender minority) or sexual orientation (collapsed and coded as heterosexual and sexual minority).

---

$^1$ Participants taking psychotropic medications only represented 13% ($n=15$) of the sample.
Table 9

*Significant Correlations of Predictors and Residualized Gain Scores of Acceptability Ratings*

<table>
<thead>
<tr>
<th>Demographic Group</th>
<th>Acceptability Rating</th>
<th>N</th>
<th>Believable</th>
<th>Relatable</th>
<th>Persuasive</th>
<th>Agree</th>
<th>Consistent with my values</th>
<th>Consistent with family and friends' values</th>
<th>Tell a Friend</th>
<th>Trustworthy Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>DASS-21 Anxiety¹</td>
<td></td>
<td>114</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.22*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test Public Stigma: SSRPH</td>
<td></td>
<td>114</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-</td>
<td>-.25*</td>
<td>.26**</td>
<td>-.23*</td>
</tr>
<tr>
<td>Pre-test Close-other Stigma: PSOSH</td>
<td></td>
<td>114</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-</td>
<td></td>
<td></td>
<td>-.24*</td>
</tr>
<tr>
<td>Pre-test Friend therapy recommendation¹</td>
<td></td>
<td>113</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.24*</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** p<.01  * p<.05
¹Transformed variable

Table 10

*Significant ANOVAs of Demographic Subgroups on Residualized Gain Scores of Acceptability Ratings*

<table>
<thead>
<tr>
<th>Demographic Group</th>
<th>Acceptability Rating</th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generational Status</td>
<td>Consistent with my values</td>
<td>3, 107</td>
<td>3.05</td>
<td>0.03</td>
<td>0.079</td>
</tr>
<tr>
<td>South Asian</td>
<td>Consistent with my values</td>
<td>1,112</td>
<td>4.57</td>
<td>0.04</td>
<td>0.038</td>
</tr>
<tr>
<td>Southeast Asian</td>
<td>Believable</td>
<td>1,112</td>
<td>4.17</td>
<td>0.04</td>
<td>0.036</td>
</tr>
<tr>
<td>Southeast Asian</td>
<td>Persuasive¹</td>
<td>1,112</td>
<td>5.06</td>
<td>0.03</td>
<td>0.037</td>
</tr>
<tr>
<td>Southeast Asian</td>
<td>Agree</td>
<td>1,112</td>
<td>9.34</td>
<td>0.00</td>
<td>0.081</td>
</tr>
<tr>
<td>Southeast Asian</td>
<td>Consistent with my values</td>
<td>1,112</td>
<td>6.55</td>
<td>0.01</td>
<td>0.056</td>
</tr>
<tr>
<td>Southeast Asian</td>
<td>Consistent with family &amp; friends values</td>
<td>1,112</td>
<td>4.31</td>
<td>0.04</td>
<td>0.037</td>
</tr>
<tr>
<td>East Asian</td>
<td>Consistent with family &amp; friends values</td>
<td>1,111</td>
<td>4.33</td>
<td>0.04</td>
<td>0.038</td>
</tr>
<tr>
<td>Therapy history</td>
<td>Believable</td>
<td>1,112</td>
<td>4.72</td>
<td>0.03</td>
<td>0.041</td>
</tr>
<tr>
<td>Current meds</td>
<td>Consistent with family &amp; friends values</td>
<td>1,111</td>
<td>4.3</td>
<td>0.04</td>
<td>0.037</td>
</tr>
</tbody>
</table>

¹Transformed variable
Hypothesis 3

It was hypothesized that a between-subjects ANCOVA controlling for pre-test scores would reveal more positive changes in help-seeking stigma (SSRPH, PSOSH, and SSOSH), attitudes (MHSAS), and intentions (GHSQ), as well as friend therapy recommendations between pre- and post- Time 1 for the culturally adapted condition. Neither condition led to significant differences in help-seeking stigma, attitudes, or intentions, nor friend therapy recommendations. Analyses used transformed variables, but there were no differences in patterns of results between transformed and untransformed variables. Reported means are untransformed for ease of interpretation. See Table 11.

Table 11

<table>
<thead>
<tr>
<th>Variable</th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>η²</th>
<th>CA first pre-test M (SD)</th>
<th>CA first post-test M (SD)</th>
<th>GE first pre-test M (SD)</th>
<th>GE first post-test M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public stigma: SSRPH</td>
<td>1,112</td>
<td>0.92</td>
<td>0.34</td>
<td>0.008</td>
<td>5.39 (3.22)</td>
<td>6.32 (3.50)</td>
<td>5.02 (3.16)</td>
<td>5.58 (3.43)</td>
</tr>
<tr>
<td>Close-other stigma: PSOSH¹</td>
<td>1,112</td>
<td>0.27</td>
<td>0.607</td>
<td>0.002</td>
<td>10.60 (5.43)</td>
<td>10.04 (5.39)</td>
<td>9.23 (4.47)</td>
<td>8.68 (4.38)</td>
</tr>
<tr>
<td>Self-stigma: SSOSH¹</td>
<td>1,80</td>
<td>1.807</td>
<td>0.183</td>
<td>0.022</td>
<td>24.53 (7.92)</td>
<td>23.85 (7.51)</td>
<td>24.65 (8.18)</td>
<td>22.63 (9.43)</td>
</tr>
<tr>
<td>Help-seeking attitudes: MHSAS¹</td>
<td>1,86</td>
<td>1.276</td>
<td>0.262</td>
<td>0.015</td>
<td>5.84 (1.09)</td>
<td>5.95 (1.11)</td>
<td>5.69 (1.34)</td>
<td>6.09 (0.96)</td>
</tr>
<tr>
<td>Help-seeking intentions: GHSQ</td>
<td>1,111</td>
<td>0.912</td>
<td>0.342</td>
<td>0.008</td>
<td>3.85 (1.93)</td>
<td>3.98 (1.81)</td>
<td>3.85 (1.99)</td>
<td>3.81 (2.05)</td>
</tr>
<tr>
<td>Friend therapy recommendation¹</td>
<td>1,112</td>
<td>1.494</td>
<td>0.224</td>
<td>0.013</td>
<td>5.90 (1.29)</td>
<td>6.02 (1.21)</td>
<td>5.57 (1.28)</td>
<td>5.92 (1.14)</td>
</tr>
</tbody>
</table>

¹ ANOVAs using transformed variables

Note. No differences of patterns between transformed and untransformed variables. Reported means are untransformed.
Post Hoc Analysis of Hypothesis 1.1

A post hoc analysis of Hypothesis 1.1 was conducted where the sample was selected for and split by 1.5 and 2nd generational status. This post hoc analysis was conducted in light of Hypothesis 2.2, in which a between-groups ANOVA of generational status on residualized gain scores of acceptability ratings found that those in the 1.5 generation group rated the acceptability item, “Consistent with my values,” higher in the culturally adapted condition ($M=.44$) and the 2nd generation group rated this item higher in the generic Eurocentric condition ($M=-.14$). When the sample was split by 1.5 and 2nd generation, a repeated measures ANOVA found that the 1.5 generation group rated “Relatable” significantly higher in the generic Eurocentric condition ($M=.39$) than in the culturally adapted condition ($M=.30$), $F(1,23)=4.66$, $p=.04$, $\eta^2=.18$, a large effect size. Additionally, the 2nd generation group rated “Agree” significantly higher in the culturally adapted condition ($M=.31$) than in the generic Eurocentric condition ($M=.25$), $F(1,77)=5.37$, $p=.023$, $\eta^2=.065$, a medium effect size. No significant differences were found for the other acceptability items, including “Consistent with my values.” As noted, no multiple-comparison corrections were used.
Table 12
Post Hoc Repeated Measures ANOVA of Condition on Acceptability Ratings with Sample Split by 1.5 and 2nd Generation

<table>
<thead>
<tr>
<th>Acceptability Rating</th>
<th>Full Sample (n=114)</th>
<th>1.5 Generation (n=24)</th>
<th>2nd Generation (n=78)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>df</td>
<td>F</td>
<td>p</td>
</tr>
<tr>
<td>1. Believable</td>
<td>1,113</td>
<td>0.417</td>
<td>0.52</td>
</tr>
<tr>
<td>2. Relatable</td>
<td>1,113</td>
<td>0.249</td>
<td>0.619</td>
</tr>
<tr>
<td>3. Persuasive</td>
<td>1,113</td>
<td>0.23</td>
<td>0.633</td>
</tr>
<tr>
<td>4. Agree</td>
<td>1,113</td>
<td>2.297</td>
<td>0.132</td>
</tr>
<tr>
<td>5. Consistent with my values</td>
<td>1,113</td>
<td>0.007</td>
<td>0.933</td>
</tr>
<tr>
<td>6. Consistent with values of family &amp; friends</td>
<td>1,112</td>
<td>0.306</td>
<td>0.581</td>
</tr>
<tr>
<td>7. Tell a friend</td>
<td>1,113</td>
<td>0.003</td>
<td>0.953</td>
</tr>
<tr>
<td>8. Trustworthy speaker</td>
<td>1,113</td>
<td>0.188</td>
<td>0.666</td>
</tr>
</tbody>
</table>

*p<.05
Note. All acceptability rating items are transformed
CHAPTER 5
DISCUSSION

The current study assessed the acceptability of stigma and help-seeking messages framed with culturally adapted Asian American values or generic Eurocentric values in a sample of 115 South, Southeast, and East Asian American college students. Using an online platform, participants read and listened to narrated stories of college students experiencing mental health symptoms, stigma concerns, and examples of the congruence of the benefits of therapy and mental wellness with values. Participants provided quantitative feedback on each condition as a whole, as well as specific messages, and completed questionnaires to assess for potential correlates of message acceptability. I hypothesized that the culturally adapted condition would be rated significantly higher than the generic Eurocentric condition (Hypothesis 1.1), and that the culturally adapted condition would lead to more improvements in help-seeking stigma, attitudes, and intentions (Hypothesis 3). I also explored whether individual messages varied in their acceptability (Hypothesis 1.2), and if any correlates or subgroups related to differential condition acceptability (Hypotheses 2.1 and 2.2). Overall, I found that both conditions were rated highly acceptable, but not significantly different. I also found some potential correlates and subgroups for differential message acceptability. The following discusses the findings of each hypothesis in depth.
Hypotheses 1.1, 1.2, and 3

My primary hypothesis (1.1) that the culturally adapted condition would be rated more acceptable than the generic Eurocentric condition was not supported. In fact, I found no significant differences between conditions. Further, in Hypothesis 1.2, all messages regardless of condition were rated highly (i.e., above “equally agree and disagree”), ranging from 4.24 to 6.02 on a scale from 1 to 7 (1: strongly disagree, 4: equally agree and disagree, 7: strongly agree) across acceptability dimensions of persuasive, consistent with my values, and consistent with my family and friends’ values. No individual messages were rated poorly. Additionally, in Hypothesis 3, I found no significant changes in help-seeking stigma (SSRPH, PSOSH, and SSOSH), attitudes (MHSAS), and intentions (GHSQ), as well as friend therapy recommendations between pre- and post- Time 1 for either condition.

There are a number of possible explanations for the non-significant findings. First, they could be evidence that the culturally adapted messages are in fact not more acceptable than generic Eurocentric messages for a college sample in similar contexts. However, a review of the literature indeed points to the importance of cultural context in mental health stigma and help-seeking for Asian Americans (Han et al., 2017; L. H. Yang, Chen, et al., 2014), the need for ethnocultural responsiveness (American Psychological Association, 2019), recommendations for values-based adaptations to stigma interventions (Abdullah & Brown, 2011), and the promise of current culturally adapted stigma interventions for Asians and Asian Americans (Han et al., 2014; Shin, 2004; Shin & Lukens, 2002; L. H. Yang, Lai, et al., 2014). Thus, while research justifies the theoretical grounding for the current study, the non-significant differences between the culturally adapted and generic Eurocentric conditions
were surprising. Given that both conditions were rated positively, it’s possible that there was a ceiling effect, such that a difference between conditions could not be detected. It’s also conceivable that the degree of discrepancy between the Asian American and European American values represented in the currently developed messages wasn’t large enough to produce significantly different message acceptability nor changes in help-seeking stigma, attitudes, or intentions. Perhaps the generic Eurocentric condition didn’t strongly represent Individualism or Independent Self-Construal, and thus the difference in values were not pronounced for participants. Unfortunately, a measure of European American values was not included, so correlations between European American values and “consistency with values” of the generic Eurocentric condition cannot be conducted to confirm the representation of these values. Another possibility is that the outcome measure used to assess acceptability was insufficiently sensitive or valid and could not detect differences. The remaining analyses should be interpreted in the context that all messages were rated highly, with no significant differences of condition.

Hypotheses 2.1 & 2.2, and Post Hoc Analysis of Hypothesis 1.1 with 1.5 and 2\textsuperscript{nd} Generation

Potential correlates and subgroups of differential message acceptability were found; however, they must be interpreted carefully given the risk of Type I error with the large number of analyses conducted. A multiple-comparison correction, such as a Bonferroni correction, was not used because the adjusted $\alpha$ would be reduced to at least $<.002$ and would render all the findings insignificant. In Hypothesis 2.1, I found that higher scores of interdependent self-construal were associated with higher ratings of “Believable,”
“Relatable,” “Persuasive,” “Agree,” and “Consistent with my values” acceptability items in the culturally adapted condition above and beyond that of the generic Eurocentric condition. This was consistent with hypotheses, given that the culturally adapted condition was developed to, in part, embody interdependent self-construal, defining oneself in relation to others and one’s context, through messages such as, “Therapy can help improve relationships with family and friends. It can help me to better be there for them, put them first, communicate better, and stay connected;” “Therapy can support me in trying to make my family proud by helping me manage worries so I can do my best in school and in my career;” and “Therapy can help me to express gratitude for my family and all they’ve done for me by genuinely feeling and doing well.” It was expected that higher scores of interdependent self-construal would relate to acceptability of the culturally adapted condition, intentionally developed with this value. However, given the documented relations between stigma and both interdependent self-construal and other Asian American values (Shea & Yeh, 2008), it was surprising that significant correlations were not also found for the Collectivism, Family recognition through achievement, and Conformity to norms subscales of the AAVS. It’s also possible that generational status may impact these unexpected findings, such that interdependent self-construal may be more consistent across generational status compared to other Asian American values. In fact, McCullough and Svetina Valdivia (2021) used item response theory to test the impact of generational status (first vs second generation and above) on differential endorsement of interdependent self-construal, using the same scale, among Southeast and East Asian American college students. They found that the Interdependence subscale generally functioned consistently across generational status, except
for two items flagged for differential response: SCS16 ("If my brother or sister fails, I feel responsible.") and SCS21 ("My happiness depends on the happiness of those around me.").

More perplexing, I found that stronger endorsement of the Emotional Self-Control subscale of the AAVS was associated with higher ratings of “Agree” and “Consistent with my values” in the generic Eurocentric condition above and beyond that of the culturally adapted condition. This finding is surprising because items in the culturally adapted condition were developed to frame the benefits of therapy with this value, including “Sharing emotions with a therapist is not a burden on them and is part of the process of understanding my experiences” and “Instead of making emotions worse, therapy can teach me how to not let emotions take control of my actions.” In contrast, the generic Eurocentric condition did not directly address emotional self-control. Perhaps participants endorsing higher emotional self-control preferred the absence of addressing emotions in the generic Eurocentric condition.

In Hypothesis 2.2, correlations between message acceptability and predictor variables were less consistent across the eight dimensions of acceptability. Correlations with acceptability items ranged from only one to three of the single item measures, making it more likely that they were due to Type I error, rather than evidence of a significant pattern of associations. For example, greater pre-test public stigma (pre-SSRPH) was associated with higher ratings on “Agree,” “Consistent with values of my family and friends,” and “Trustworthy speaker,” in the generic Eurocentric condition above those of the culturally adapted condition. Similarly, greater pre-test close-other stigma (pre-PSOSH) was associated with relatively higher ratings of “Trustworthy speaker” in the generic Eurocentric condition.

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The reference group for public stigma in the SSRPH is non-specific “people,” such as “people will see a person in a less favorable way if they come to know that he or she has seen a psychologist.” The reference group for close-other stigma in the PSOSH is “people you interact with,” such as “to what degree do you believe that the people you interact with would think of you in a less favorable way.” It may be that starting with greater public and close-other stigma, as measured in this study, prior to viewing messages may predispose greater acceptability to generic Eurocentric messages. Given the dominance of stigma messages framed within U.S. cultural values (as opposed to other values), perhaps these participants had prior exposure to and familiarity with generic Eurocentric messages in public mental health campaigns or programming. Similarly, it’s possible that familiarity with generic Eurocentric messaging may have contributed to higher ratings of agreement in the generic Eurocentric condition for participants with greater anxious arousal (DASS-21 Anxiety), although exposure to prior public mental health programming or messaging was not assessed. Unsurprisingly, greater likelihood to recommend therapy to a friend at pre-test was associated with higher ratings of “Consistent with values of my family and friends” in the culturally adapted condition. This association may indicate that the culturally adapted condition represents the values of family and friends for participants who were already likely to recommend therapy to a friend, more so than the generic Eurocentric condition.

Findings from Hypothesis 2.2 also indicated potential subgroups of condition acceptability. The most consistent subgroup differences appear to be by ethnic region. Southeast Asian participants (coded as group or non-group membership) rated “Believable” “Persuasive,” “Agree,” “Consistent with my values,” and “Consistent with values of my
family and friends” higher in the culturally adapted condition. However, South Asian participants rated “Consistent with my values” and East Asian participants rated “Consistent with values of my family and friends” higher in the generic Eurocentric condition. It appears that something about the generic Eurocentric condition may be more congruent with values than the culturally adapted condition for East and South Asian college students. I considered whether Generational Status may be contributing to this pattern and found that participants with 1.5 generational status rated “Consistent with my values” higher in the culturally adapted condition, but 2nd generation participants rated this item higher in the generic Eurocentric condition. This generational difference may reflect higher enculturation of Eurocentric values for 2nd generation participants, being born in the U.S. This finding is consistent with Han and Pong’s findings that second generation Asian American college students were more likely to be willing to seek professional help than first generation students (Han & Pong, 2015). Further, participants with higher endorsement of American identity and cultural embracement were more willing to seek mental health services.

In the current study, given that chi-square testing found no significant differences of sample size for generational status by ethnic region, the different patterns by ethnic region may not be driven only by generational status. Additionally, the post hoc repeated measures ANOVA findings did not support a pattern consistent with generational status as a proxy for acculturation or assimilation with European American values. The 1.5 generation group rated “Relatable” significantly higher in the generic Eurocentric condition and the 2nd generation group rated “Agree” significantly higher in the culturally adapted condition, a pattern opposite of the expected direction.
In addition to generational status, it is possible that other factors may relate to greater likelihood of acculturation or higher endorsement of Eurocentric values, including colonization, circumstances of immigration, education, and related likelihood to be living in White European American cultural environments. For example, the consistent acceptability of the culturally adapted condition in Southeast Asian Americans may reflect less likelihood of assimilation with European American cultural environments. Parental values, which were not measures in the current study, may also impact Asian American college students’ responses to anti-stigma messages. Liu found that high parental Confucian values superseded individual values in terms of the impact of stigma on help-seeking (Liu, 2018).

In light of the uniqueness of the current study, including the online platform, help-seeking messages intentionally framed by values, and comparing culturally adapted vs. generic Eurocentric conditions, it is difficult to identify other research that could support or oppose the findings by ethnic region found in this study. However, Han and colleagues’ (2014) stigma intervention disseminated through radio shows and newspaper columns in the local northern Californian Vietnamese community provides some relevant precedence. The stigma intervention, which included specific messages, such as “Mental health is a part of every community and family,” as well as educational components and life stories, received positive feedback from focus groups of participants who confirmed exposure to Tam An programming. Han and colleagues’ study documents positive acceptability of targeted messaging in a Southeast Asian community. Specific generational status of the focus group participants are not reported, but the authors describe a community of “immigrants” and thus likely representing 1st and 1.5 generational status. In contrast, the
current study’s sample is mostly representative of 1.5 and 2nd generation Asian Americans. Further, Han and colleagues’ study did not intend to include a generic Eurocentric comparison to the culturally adapted intervention, and measures of stigma and values were not collected. Therefore, it is unclear how to situate their findings to those of the Southeast Asian participants in the current study, and to what extent values or cultural adaptation may have affected or not affected receptivity.

Regarding therapy history, the higher ratings of believability for the culturally adapted condition compared to the generic Eurocentric condition may reflect some level of congruence with experiences of Asian Americans seeking and benefiting from therapy as better represented by the culturally adapted condition. However, culturally adapted messages were not significantly rated better among participants without a history of therapy, a population that stigma and help-seeking interventions aims to target. Additionally, participants currently taking psychotropic medication rated “Consistent with the values of my family and friends” higher in the generic Eurocentric condition. Though puzzling, the sample of participants currently taking medication was small (n=15), and it is unclear how to interpret this finding.

The current study was the first to develop and test the acceptability of an online culturally adapted, values-based stigma and help-seeking intervention for Asian American college students. Similarly, it was the first to intentionally frame the benefits of therapy as congruent with values-based behaviors to reduce the social costs of impaired functioning in Asian American college students. Notably, all messages regardless of condition were rated highly. While analyses found no significant differences in general acceptability between the
culturally adapted and generic Eurocentric conditions, the culturally adapted condition appeared to be robustly more acceptable (across several dimensions/items) to participants with higher interdependent self-construal and Southeast Asian identifying, and possibly more acceptable (across fewer dimensions/items) to participants with 1.5 generational status, higher pre-test likelihood to recommend therapy to a friend, and with a therapy history. In contrast, findings of subgroups favoring the generic Eurocentric condition were less robust across the dimensions of acceptability. The generic Eurocentric condition was possibly more acceptable to participants with higher endorsement of emotional self-control, South or East Asian identifying, with 2\textsuperscript{nd} generational status, higher pre-test public stigma and close-other stigma, anxious arousal, and currently taking psychotropic medications.

**Limitations**

Study limitations may also explain some of the findings overall, as well as point to future directions of research. Importantly, while research indicates the importance of targeting specific Asian American communities (Ashton et al., 2018; Han et al., 2014), especially given the social nature of stigma, the greater ease of disseminating an online study warranted targeting individuals. Additionally, a potentially significant limitation for the culturally adapted condition, given the prevalent involvement of family members or caregivers regarding healthcare and relevant decision-making (Shin, 2004; L. H. Yang, Lai, et al., 2014), is that none of the vignettes mentioned inclusion of family members in the decision to start therapy or throughout treatment. Vignettes in the culturally adapted condition discussed improvement in relationships with family members, the individual’s ability to fulfill roles or expectations within the family, and showing gratitude towards family.
“for all they’ve done for [the student].” It’s also possible participants in the sample would have experienced more personal relevance or salience with the stories if they were explicitly identified as “Asian American stories.” The instructions introducing the culturally adapted condition only stated that these were stories from college students, without any explicit cues for the ethnicity or race of the speaker. However, introducing the culturally adapted condition as “Asian American stories” and not doing so for the generic Eurocentric condition would introduce a confounding variable in which different effects could be attributed to the label as Asian American rather than the targeted Asian American values. On the other hand, explicit descriptions of Asian American stories may also be considered as part of the intentional cultural adaptations. In addition to the absence of ethnic and racial cues, no cues for gender were provided, although the same female voice narrated the vignettes across both conditions; thus, gender was presumably not a variable increasing saliency of or attention to the vignettes. Finally, as mentioned above, it’s possible that low depth of Individualism and other European American values are limitations for the generic Eurocentric condition as truly representative of these values.

In addition, the format of narrated slides of text, with no other photos or visual effects, may have felt boring and failed to maintain attention or engagement, possibly not providing a strong enough dose to affect help-seeking stigma, attitudes, or intentions. On the other hand, 55.7% of this sample already had a history of therapy, and their help-seeking stigma, attitudes, or intentions may not have necessitated change or been sensitive to these manipulations. Additionally, given that 217 out of 361 respondents did not complete the study, it’s also possible that survey fatigue contributed to disengagement.
Regarding the sample, although the sample diversity was a notable strength of this study, including South, Southeast, and East Asian Americans, the sample size for South Asian Americans was proportionately smaller \( (n=16) \). The focus on college student populations and the eligibility requirement for living in the United States for at least 10 years may have also limited participants with first generational status \( (n=2) \). It is also noted that a number of the models of culturally adapted interventions used to develop the current study included samples with first generation Asian Americans (e.g., Han et al., 2014, 2017; Yang, Chen, et al., 2014; Yang, Lai, et al., 2014), a limitation for the current study. Still, other literature has established relations between stigma, help-seeking, and Asian American values across 1\textsuperscript{st}, 1.5, and 2+ generational status in South, Southeast, and East Asian American college students (Choi & Miller, 2014). Further, although college students were the target population, this sample may not generalize to populations of other life-stages. Importantly, a majority of the sample reported a history of therapy \( (n=64) \), and thus has already demonstrated help-seeking behaviors, possibly producing a ceiling effect.

Another limitation to the study is in the measurement of outcomes. I did not measure the potential impact of messages over time or on behavior. On the other hand, Mojtabai and colleagues (2016) found that willingness to seek professional help for a “serious emotional problem” was significantly associated with actual future help-seeking behaviors, indicating that help-seeking intentions may predict future behaviors. Still, it’s possible that the impact of these messages would not produce immediate effects on intentions or behavior. I also did not collect information on prior exposure to public mental health campaigns or programming, which may have affected receptivity to messages in this study based on the mere exposure
effect. Additionally, given previous research indicating that parental Confucian Values may supersede the impact of individual values on stigma attitudes (Liu, 2018), it’s possible that a measure of parental values may have added to or clarified patterns found in the current study.

Finally, I must acknowledge the potential impact of environmental factors during data collection, including the global pandemic, high pervasiveness of anti-Asian hate and violence, and stress about the sociopolitical climate on mental health, stigma, trust in the healthcare system, and intentions for future health behaviors.

**Future Directions**

Given the findings and limitations, and the paucity of research in this area, many more future studies are needed. A qualitative study, such as including interviews or focus groups, would allow for richer contribution and feedback from Asian American communities regarding which messages and framing may be effective and for whom. Future research could further explore the relationship between message effectiveness and self-construal or emotional self-control. Studies with larger samples may also have the statistical power to include these values as covariates. In addition to differences based on cultural values, future studies could explore how other aspects of identity or lived experiences may impact message effectiveness. For example, ethnic affiliation or acculturation measures could be collected and analyzed. Similarly, qualitative studies could investigate whether particular messages or framing may cause unintended harm based on lived experience of mental health symptoms, a phenomenon not explored in the current study. For example, Siegel and colleagues (2019) found that some anti-stigma messages targeting the general public may produce unintended negative effects. In this study, a brief video PSA encouraging individuals experiencing
mental health symptoms to seek the support of friends led to increased rumination about not having many friends in participants with depressive symptoms.

After continued development and cultural adaptation to help-seeking messages, another quantitative study could compare the potential greater effectiveness of these messages to generic Eurocentric messages, perhaps targeting participants without a history of therapy. Similarly, the culturally adapted messages could be structured to match the structure of an existing generic Eurocentric stigma intervention (rather than that developed in the current study).

Future studies could also consider targeting specific ethnic cultures or regions to further identify nuances of what would be helpful for these communities. Targeting specific communities would also facilitate including more specific ethnic or cultural cues in the stories (e.g., names, culturally specific beliefs, etc.) that could enhance the relatability of the messages. Similarly, future studies could target 1st generation immigrants, as this subgroup was not well-represented in the current study. It may also be beneficial for culturally adapted stigma interventions to target whole communities or families (rather than individuals) because the social nature of stigma operates in communities (Ashton et al., 2018). To replicate or better understand the regional ethnic differences found in the current study, it may also be beneficial for future studies to examine specific ways that effective messaging may differ by ethnicity or cultural groups. In addition, given Greenwell’s (2019) findings that memorable messages from family members about mental health were significantly related to young adult attitudes about mental health help-seeking, interventions targeting communities may consider how messaging may be passed from parents or caregivers to children.
As noted in the limitations, Asian American family members or caregivers are often included in the decision to start therapy or throughout treatment, and future studies of help-seeking messages may consider including stories of family member’s reactions, both positive and negative. Studies could also investigate the potential acceptability of stories in which family members learn of their college student children starting therapy, stigma concerns, and potential changes in their attitudes toward therapy if they witness improvements in their children’s mental wellness and/or values-based behaviors. Further, given the potential for college students to be enculturated with both Asian American and European American values, stories may also include the student’s process of negotiating these values.

In this online study, a sample of East, South, and Southeast Asian American college students positively rated both culturally adapted and generic Eurocentric stories embedded with respective values-based messages addressing stigma and help-seeking, including examples of how recovery and wellness may be congruent with values-based behaviors. The current study did not find significant differences of acceptability ratings between conditions or changes in pre-test to post-test help-seeking stigma, attitudes, or intentions. Future research is needed to further explore the usefulness of discussing values-based behaviors in help-seeking promotion, effective strategies for cultural adaptations, and potential differences for specific populations. Overall, this investigation confirms the acceptability of online culturally adapted messages for Asian American college students, supporting the need for future work in this area.
APPENDIX

A. STUDY DESIGN AND RELATED HYPOTHESES

Recruitment & Consent
200 East, South, Southeast Asian American UMass Boston students self-identify

Pre-test
- Symptom correlates: SSS-8 & DASS-21
- Exploratory Outcomes: help-seeking stigma (SSRPH, PSOSH, and SSSOSH), attitudes (MIHAS), and intentions (GHOSQ)

Randomization to Condition
- Culturally adapted or generic Eurocentric messaging first
- Participants receive both conditions (culturally adapted or generic Eurocentric) and randomization counterbalances order

Group 1: Culturally adapted first
Group 2: Generic Eurocentric first

Time 1
Randomized to culturally adapted messaging condition first

Message Feedback
- Condition feedback: Likert & Open-ended feedback
- Message-specific Likert feedback

Exploratory Outcomes
- Help-seeking stigma (SSRPH, PSOSH, and SSSOSH), attitudes (MIHAS), and intentions (GHOSQ)

Neutral Activity

Time 2
Culturally adapted messaging condition

Message Feedback
- Condition feedback: Likert & Open-ended feedback
- Message-specific Likert feedback

Exploratory Outcomes
- Help-seeking stigma (SSRPH, PSOSH, and SSSOSH), attitudes (MIHAS), and intentions (GHOSQ)

Neutral Activity

Time 2
Generic Eurocentric messaging condition

Message Feedback
- Condition feedback: Likert & Open-ended feedback
- Message-specific Likert feedback

Post-Test
- Post-test open-ended feedback
- Correlates: Asian American values (AAVS-M and CVS-SF), Self-construal Scale (SCS), Demographics

Within-Subjects Aims
(Culturally adapted vs. generic Eurocentric):
Hypothesis 1.1: Repeated measures ANOVAs of message condition feedback (culturally adapted vs. generic Eurocentric) will reveal a significant difference in acceptability ratings for individual messages within condition

Hypothesis 1.2: Correlations will show that differences in acceptability between message conditions will be associated with higher scores on the subscales of the AAVS-M, Self-esteem (CVS-SF), and Interdependence (CPSI)

Hypothesis 2.1: Demographic variables (e.g., age, gender, ethnicity, etc.), symptoms of depression and anxiety (SS-8 & DASS-21), and pre-test help-seeking stigma (SSRPH, PSOSH, and SSSOSH) may be predictive of differential message acceptability
## B. ORDER OF MEASURES

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre-test</th>
<th>Post-Test</th>
<th>Post-Time 1b</th>
<th>Post-Time 2</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test Correlates:</td>
<td></td>
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<tr>
<td>• Somatic Symptoms Scale-8 (SSS-8)</td>
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<td>X</td>
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<tr>
<td>• Depression, Anxiety, and Stress Scale 21-item (DASS-21)</td>
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<tr>
<td>Help-Seeking Stigma:</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
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<tr>
<td>• Stigma Scale for Receiving Psychological Help (SSRPH): perceived public stigma for seeking help, 5 items</td>
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<tr>
<td>• Perception of Stigmatization by Others (PSOSH): stigma by close others for seeking help, 5 items</td>
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<tr>
<td>• Self-Stigma of Seeking Help (SSOSH): self-stigma for seeking help, 10 items</td>
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<tr>
<td>Help-Seeking Attitudes:</td>
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<td>Mental Health Help-Seeking Attitudes Scale (MHSAS)</td>
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<td>Help-Seeking Intentions:</td>
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<td>X (except GHSQ Part 2)</td>
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<tr>
<td>• General Help-Seeking Questionnaire (GHSQ)</td>
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<tr>
<td>• Friend help-seeking, single item</td>
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<td>X</td>
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<tr>
<td>Condition Feedback:</td>
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<td>X</td>
<td>X</td>
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<tr>
<td>• Open-ended condition feedback</td>
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<td>• Likert feedback: believable, relatable, persuasive, agree, consistent with my values, consistent with the values of my family and friends, intention to tell a friend, trustworthiness of speaker</td>
<td></td>
<td>X</td>
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<tr>
<td>Message Specific Likert Feedback:</td>
<td></td>
<td>X</td>
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<tr>
<td>• Persuasive, consistent with my values, consistent with the values of my family and friends</td>
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<td>X</td>
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<tr>
<td>Post-test open-ended feedback</td>
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<td>Post-test Correlates:</td>
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<td>X</td>
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<tr>
<td>• Self-Construal Scale (SCS)</td>
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<tr>
<td>• Asian American Values Scale – Multidimensional (AAVS-M)</td>
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<tr>
<td>• Confucian Values Scale-Saving face subscale (CVS-SF)</td>
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<tr>
<td>• Demographics</td>
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<td>X</td>
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</tbody>
</table>
C. MESSAGE CONDITIONS

Instructions:

A narrator will read you three short stories based on college students who wanted to share their experiences of anxiety and depression in college, and what helped them. Please listen and read along, and then give your feedback on these stories so we can learn what will be most helpful to better support other students having similar experiences.

Culturally Adapted Condition: 10 messages (not bolded in experimental presentation)

<table>
<thead>
<tr>
<th>Short Vignettes (total: 661 words, avg: 220 words)</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>I usually stayed on top of my academics, but my second year in college was hard. I didn’t understand why I couldn’t motivate myself to get out of bed or stop watching Netflix, and I was tired all the time. Growing up, my parents didn’t see mental health as an issue, and I was reluctant to get help. And I wondered if talking about my emotions could make them worse. Eventually, I realized I was stuck in a cycle I couldn’t get out of, so I tried counseling. In therapy, I learned that anxiety and depression are real health problems, and are treatable. People get better all the time. I felt relieved to hear that these problems are more common than many realize, and I wasn’t alone in experiencing them. It felt like fresh air. And instead of making emotions worse, therapy actually taught me how to not let emotions take control of my actions. I used to think that only people who were having really bad issues went to therapy; but I learned that therapy is for anyone who wants support in getting unstuck.</td>
<td>Emotional self-control</td>
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<tr>
<td>I had stopped hanging out with friends or connecting with people. I was sad and wasn’t sleeping well. Sometimes I would get so mad at myself for being “too emotional” and weak. I didn’t talk about it with my family because we don’t talk about those things, and I felt scared and ashamed. I couldn’t take it if my family told me to “just try harder.” Being told to try harder when I’m already trying my hardest would hurt even more. I also didn’t want to burden my family with my feelings, or for people in the community judge us. So I got good at pretending I was okay. Eventually, I tried therapy and it helped me get a different perspective and feel less stuck. I learned that my problem wasn’t that I didn’t try “hard enough,” but that I needed to try something different. I learned that getting help isn’t a sign of being weak or lazy, and can even strengthen self-discipline. At first it was difficult to share my feelings with the therapist. I also didn’t want to burden them. But they told me that understanding and sharing my feelings wasn’t a burden on them, and was part of the process of understanding my experiences. Therapy also helped improve my relationships, like with family and friends. It helped me to better be there for them, put them first, communicate better, and stay connected.</td>
<td>Collectivism; Saving face; Emotional self-control; Interdependent self-construal</td>
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<tr>
<td>I had one hard semester after another. I felt overwhelmed keeping up with everything, and took a class incomplete. It felt like my mind was racing with worries, and I kept getting headaches. I also blamed myself for being in this situation and not being able</td>
<td>Collectivism; Filial piety; Family</td>
</tr>
</tbody>
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to feel better. I worried people might blame and look down on my family if they knew about my problems. And if my parents found out I went to therapy, would they worry too much about me? Or would think I wasn’t grateful for all they’ve sacrificed for me? Would they worry that people in the community would find out about our family problems? The therapist reassured me that what I shared about me and my family would be kept private and confidential. After going to therapy, I learned that no one is to be blamed for anxiety and depression. Many factors can cause these experiences, and no one was planning for it to happen. I also learned that therapy can support me in trying to make my family proud by helping me manage worries so I can do my best in school and in my career. Importantly, therapy helped me to express gratitude for my family and all they’ve done for me by genuinely feeling and doing well. I felt lighter and fuller at the same time.

**Generic Eurocentric Condition: 10 messages (not bolded in experimental presentation)**

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<tr>
<th>Short Vignettes (total: 608 words, avg: 203 words)</th>
<th>Values</th>
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| I had a time-period when I was sad all the time and didn’t know why. As the days went by, stress, anxiety, and negative thoughts built up and it felt like a rain cloud over my head. I didn’t feel motivated to do the things I loved to do, and was sleeping a lot. I started going to classes late, and my grades got worse and worse. I failed a class and had to retake it. I didn’t get help at first because I wasn’t sure if therapy was for me and I was nervous about trying it. I thought that therapy was for “those other people,” people with real problems. What if my friends see me differently for going? Eventually I decided to try therapy. I learned that anxiety and depression are more common than I thought, and treatment can help. What reassured me is that there are so many other people out there that struggle with things like this. I’m not alone. I also learned that therapy is not only for people with “real problems.” It’s for anyone wanting to be healthy, and can help you be the person you want to be.  
I stopped hanging out with my friends and let my grades slip away. I was anxious and critical of everything I did because I was afraid of what people thought of me. Every day I woke up to this weight on my chest, this feeling of isolation, being unwanted, unloved, and unnecessary. I didn’t realize I was isolating myself. Friends and family didn’t know why I was acting the way I was. I was too embarrassed to speak out. I just didn’t know what to say and kept it to myself. And I didn’t think people would understand. They might judge me for not being able to handle things, or think I was just being emotional or dramatic. So I pretended to be okay. I got help and found out I was dealing with anxiety and depression. I wasn’t just being emotional or dramatic. Through therapy, I learned that I didn’t need to blame myself for feeling that way. It’s okay to get help and I didn’t need to pretend to be “fine” when I’m not feeling fine. I was able to cope and regain confidence in myself. I learned to worry less about people judging me. I feel like myself again and am excited about life and the new opportunities. |
| **recognition through achievement; Saving face** | Independent self-construal |
I was worrying a lot, too much. I was so worried about school and the future that I couldn’t focus on the simplest tasks. I questioned if I’m really cut out for all this -- school, career, etc. My mind was racing every night and I had trouble sleeping. I felt hopeless about where my life was going, and if I’d ever get out of feeling that way. I wondered if I could ever feel happy. I tried therapy and things started to change. I was less controlled by worry and actually able to focus on my life more. My concentration and sleep problems started to improve too. Therapy taught me that, with support, people with anxiety and depression can thrive at school and work. People can recover and stay well. It happens all the time. I also learned that therapy can support me in my personal goals and life satisfaction. It can support me in pursuing my interests, dreams, and passions. I started to see that I could get my life back, do the things I want to do, and be reasonably happy. I have more hope for my future.
REFERENCES


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