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Understanding Help-Seeking Behavior in College Students of Mexican Origin who are Suffering from Anxious and/or Depressive Symptoms

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Dedication

I would like to dedicate this dissertation to two groups of people: my dissertation committee and my family. My dissertation committee has taught me the true meaning of mentorship. A mentor is one who leads by example, remains to guide, and values the learning process and character development. I cannot express the amount of respect and appreciation I have for you all. I am incredibly grateful for having had such amazing mentors and hope to, one day, be able to provide the same guidance you have unconditionally given me. To my family: Ustedes siempre han estado a mi lado. Me han levantado en cada caída. Me han celebrado todo lo que he logrado. Estoy agradecido y orgulloso de tener a ustedes como familia. Gracias por todo y nunca olvidara sus esfuerzos para venir a este país y la importancia de seguir adelante por el camino del bien.

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Understanding Help-Seeking Behavior in College Students of Mexican Origin Suffering from Anxious and/or Depressive Symptoms

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This study sought to understand why college students of Mexican origin underutilize mental health services (i.e., university counseling services). Previous research has identified several potential reasons for the underutilization of mental health services by Mexican Americans. These reasons can be grouped into one of three categories: (1) negative attitudes toward mental illness and mental health services, (2) greater use of alternative, informal resources, and (3) barriers. To examine these factors in the context of help-seeking behavior, Ajzen's theory of planned behavior (TPB) was used. The TPB assumes that the best predictor of a certain behavior is an individual's intention to perform that specific behavior. This model includes three determinants of the intent to perform a certain behavior: (1) attitudes toward the behavior, (2) subjective normative beliefs about performing the behavior, and (3) perceived behavioral control of performing the behavior. The primary aim of this study was to examine the meditating effects of culture on the TPB and investigate the unique factors contributing to help-seeking behavior in college students of Mexican origin reporting anxious and/or

depressive symptoms. Results showed that the TPB was effective in predicting help-seeking behavior, with attitudes and subjective normative beliefs as the strongest predictors. Acculturation and cultural values did not mediate the TPB model as originally predicted, however the TPB determinants differed in predictability between *help-seekers* and *non help-seekers*. Specifically, among *help-seekers*, attitudes predicted intent to seek psychological services; among *non help-seekers*, subjective normative beliefs predicted intent. *Help-seekers* also reported more ease than *non help-seekers* on a few of the steps toward help-seeking. Lastly, qualitative measures supported findings based on the TPB and provided additional support for the strong stigmatizing views among college students of Mexican origin. These findings suggest that *non help-seekers* are a complex group and other variables, such as acculturative stress, perceived social support, and screening participants on perceived symptom distress and impairment, need to be addressed. In addition, subjective normative beliefs need to be considered in the development of psychoeducational interventions which encourage seeking psychological services for individuals of Mexican origin experiencing significant anxious or depressive symptoms.

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Chapter 1: Introduction

Empirical research indicates that the incidence and prevalence of mental illness is higher among Mexican Americans than Non-Latino Whites (Castro, 1996; Rogler, 1996; Rogler et al., 1983). However, a review of the utilization literature suggests that Mexican Americans, in general, are markedly underrepresented in the use of mental health care facilities and are significantly less likely to seek professional psychological services than Non-Latino Whites (Acosta, 1979; Alegria et al., 2002; Cabasa, Zayas, & Hansen, 2006; Castro, Coe, Gutierrez, & Saenz, 1996; Cuellar, 1987; Hough et al., 1987; Kessler et al., 1994; Leong, Wagner, & Tata, 1995; Marin, Marin, Padilla, & De La Rocha, 1983; Miville & Constantine, 2006; Perifer, Hu, & Vega, 2000; Reeves, 1986; U.S. Department of Health and Human Services, 2000; Vega et al., 1998; Wells, Klap, Koike, & Sherbourne, 2001; Zane, Hatanaka, Park, & Akutsu, 1994). Additionally, Mexican Americans report using mental health care services less frequently than Puerto Ricans and other Latinos (Harris, Edlund, & Larson, 2005). For example, Harris, Edlund, and Larson (2005) found that 6.97% of Mexican Americans reported using mental health care services in the past year, compared to 13.17% of Puerto Ricans and 9.38% of other Latinos. Another study reported even lower rates, with 4.5% of Mexican Americans seeking any type of mental healthcare service compared to 9.3% of Non-Latino Whites, 5.7% of Cubans, and 8.3% of Puerto Ricans (Berdahl & Torres Stone, 2009).

The primary goal of this dissertation is to explore the potential factors that lead to underutilization of psychological services among Mexican Americans. In this chapter of the dissertation, I review theoretical and empirical work related to Mexican Americans

underutilization of mental health services. Specifically, potential factors contributing to the underutilization of mental health services among Latinos, particularly Mexican Americans, will be reviewed. I then review the application of the Ajzen's Theory of Reasoned Action and Theory of Planned Behavior to better understand the factors involved in help-seeking behavior that prevent Mexican Americans from utilizing psychological services.

Utilization of Mental Health Services

Acosta (1979) stated, "Mexican Americans live under high levels of psychological and environmental stress that might ordinarily be expected to induce mental health problems and increase the utilization of mental health services" (pp. 504). Despite this expected increase in the utilization of mental health services, Mexican Americans are less likely to utilize psychological services than other ethnic groups, a situation that has been termed an "epidemiological paradox" (Acosta, 1979).

Utilization of psychological services can be divided into many sectors (e.g., psychiatric centers, general hospitals, mental health facilities, private practices, etc) and further divided into type of service (e.g., individual therapy, group therapy, family therapy, etc). Due to the variation of utilization rate among these services, the focus will be on specialty mental health services (SMH). SMH are described in Uebelacker, Wang, Berglund, and Kessler (2006) as a "psychiatrist, psychologist or other nonpsychiatrist mental health professional in any setting; social worker or counselor in a mental health specialty setting; use of a mental health hotline." In general, The National Comorbidity Study Replication (NCS-R) conducted in 2001-2003, suggests that 22% of individuals

with a mental disorder received SMH services within one year (Wang, Lane, Olfson, Pincus, Well, and Kessler, 2005). More specifically, Roy-Byrne, Joesch, Wang, and Kessler (2009), examined 1,772 respondents with mood or anxiety disorders and reported that 383 (20.8%) received treatment in SMH. Furthermore, when respondents were compared by race, Latinos showed a significantly lower odd ratio of .5 (CI = .3 - .8) for receiving SMH compared to Non-Latino Whites (Roy-Byrne, et al., 2009; Uebelacker, et al., 2006).

Underutilization of mental health services can also be observed among college students. For instance, researchers have reported that Latino college students underutilize university counseling services (Atkinson, Jennings, & Liongson, 1990; Constantine, Chen, & Ceesay, 1997; Pomales & Williams, 1989; Sanchez & Atkinson, 1983). In a study by The University of Texas consortium of 40-50 universities in the United States, researchers reported that of the more than 10,000 students who sought psychological services at university counseling centers, 77% were Non-Latino Whites and 8% were Latinos (Kearney, Draper, & Baron, 2003). According to the 2000 US Census, the U.S. college student population is comprised of 75% Non-Latino White students and 13% Latino students. This may indicate that Latino college students are less likely to utilize university counseling centers than their Non-Latino White counterparts.

Based on the data from the NCS-R and The University of Texas consortium, it is difficult to determine whether underutilization occurs among individuals of Mexican origin or whether it is a combination of other variables that better explain underutilization of mental health services. In these studies, Latinos are grouped together and not

investigated by ethnicity. Hence, when examining utilization, it is important to focus on specific disorders, services, and ethnicities, to better understand utilization.

Potential Factors Contributing to the Underutilization of Mental Health Services

For the most part, the literature on Mexican Americans' underutilization of mental health services has relied largely on observation and clinical lore rather than systematic empirical tests of theoretically derived hypotheses (Castro, 1996). Unfortunately, cross-cultural and intra-cultural research has yet to fully explore Mexican American individuals' mental health help-seeking behavior. Nonetheless, a review of the literature reveals three major reasons why Mexican Americans underutilize professional mental health services: (1) unfavorable attitudes toward mental health and mental illness (Berdahl & Torres Stone, 2009; Leong, Wagner, & Tata, 1995); (2) use of alternative resources when experiencing emotional distress (Duarte, 2002; Gonzalez, 1997; Jenkins, 1999); and (3) barriers that impede Latinos from receiving and seeking mental health services (Berdahl & Torres Stone, 2009; Rogler, et al., 1983).

Attitudes toward mental health and mental illness. It has long been suspected that Mexican Americans hold negative attitudes about both having a mental illness and seeking professional psychological services (Leong, Wagner, & Tata, 1995). Furthermore, these negative views have often been posited as the causes of the underutilization of mental health services among Mexican Americans (Barrera, 1978; Karno & Edgerton, 1969). For instance, Keefe (1982) hypothesized that individuals of Mexican descent tend to view having a mental illness and seeking assistance with emotional problems as a weakness in character. In addition, the literature suggests that

Mexican Americans may feel that seeking or receiving professional mental health services will have negative consequences.

Research investigating the relationship between Mexican American college students' attitudes about mental health/illness and their willingness to seek psychological services is limited. However, studies have reported on this relationship among other Latino groups (e.g., Cuban Americans, Puerto Ricans, Salvadorians, etc.) and racial-ethnic minority groups (e.g., African Americans, Latinos, Asian Americans, etc.). Gary (2005) stated that ethnic minorities who also have a mental illness are likely to experience "double stigma," which in turn contributes to their lack of motivation to seek psychological services. The notion that Latinos perceive mental illness as stigmatizing has been supported in the literature (Nadeem et al., 2007). For example, Frevert and Miranda (1998) reported that mental illness or experiencing psychological challenges is perceived as shameful among Latinos. In addition, Herrera (2005) found that Mexican American college students showed a strong negative correlation between shame associated with mental illness and the willingness to seek psychological help. Specifically, the more shame Mexican American college students associated with mental illness, the less willing they were to seek psychological help and vice versa. Thus, attitudes toward mental health and mental illness may be contributing to the underutilization of professional psychological services among Mexican American college students.

In addition to these negative beliefs about mental illness, Mexican American individuals' views of self-reliance may be predictive of their use of mental healthcare

services (Berdahl & Torres Stone, 2009). Berdahl and Torres Stone (2009), found that Mexican, Puerto Rican, and Cuban individuals strongly endorse the view that it is important for individuals to be self-reliant and that, within these three Latino groups, there was a significant correlation between high self-reliance and lower utilization of mental health services.

Although many studies report that Latinos and Mexican American college students hold unfavorable attitudes about seeking professional mental health services, several recent studies suggest that these views may be changing. Mojtabai (2007) found that the perceived stigma of mental illness has decreased and attitudes toward seeking mental health treatment have become more positive among African Americans and Latinos. Similarly, Shim, Compton, Rust, Druss, and Kaslow (2009) found that African Americans and Latinos reported more positive attitudes toward seeking mental health treatment in comparison to Non-Latino Whites. Given the inconsistencies in the literature, additional empirical study of Mexican American college students' views of mental health treatment is warranted.

Alternative non-professional mental health resources. The second reason Mexican Americans may underutilize professional mental health services is that they overutilize alternative non-professional mental health services for their emotional concerns (Barerra, 1978). For example, some researchers have argued that Latinos will seek professional psychological help only after they have exhausted all other options (Duarte, 2002; Gonzalez, 1997; Jenkins, 1999). The four most common alternative non-professional mental health services include: (1) *curanderos* (folk healers), (2) religion,

(3) medical doctors, and (4) social/familial support (Castro, 1996; Constantine, Wilton, & Caldwell, 2003; Koss-Chioino, 2000; Miville & Constantine, 2006; Prieto, McNeill, Walls, & Gomez, 2001). The following review of the literature indicates that some of these alternative resources may be more frequently utilized than others.

Curanderos. Although some researchers support the idea that Mexican Americans seek *curanderos* in times of emotional difficulty (Ayala, 1972; Martinez & Martin, 1966; Prieto et al., 2001), the use of folk healers is unlikely to adequately explain the underutilization of mental health services by Mexican Americans (Barerra, 1978). For instance, Edgerton, Karno, and Fernandez (1970) asserted that the prevalence of *curanderismo* (using folk hearers) in the Los Angeles area has diminished. In their research, they asked Mexican American residents for their preference of using *curanderos* and found that less than 1% preferred *curanderos* for reducing problematic behaviors. In a more recent study, Vega, Kolody, and Aguilar-Gaxiola (2001) found that the number of individuals who only use informal providers (i.e., *curanderos*) for mental health care was quite low (1.2%) and there was no difference among foreign and US-born Mexican Americans in need of mental health care who only sought informal providers. These data support Vega, Kolody, and Aguilar-Gaxiola (1999) assertion that the use of informal providers such as *curanderos* does not contribute significantly to individuals of Mexican origin underutilizing professional mental health services.

Religion. The research literature supports the idea that Latinos are more likely to use prayer and support from clergy members in response to emotional difficulties than other ethnic groups. For instance, Woodward, Dwinell, and Arons (1992) and Castro

(1996) suggested that using prayer and attending church can potentially relieve subjective distress by giving Mexican Americans the opportunity to place the responsibility of their problems "in the hands of God" and thereby releasing them from their own.

Furthermore, a review from Kouyoumdjian, Zamboanga, and Hansen (2003) propose that Latinos' strong spiritual beliefs serve as a barrier in receiving community mental health service. Since religion plays an important role among Latinos, it is likely that they seek help from religious organizations when faced with mental health issues (Altarriba and Bauer, 1998). A study of Latinos by Alvidrez (1999) revealed a correlation between endorsing religious or supernatural causes of mental illness and lower likelihood of utilizing mental health services. Thus, there is some empirical support for the notion that religious resources may be utilized in place of psychological mental health services among Mexican Americans who experience psychological distress.

Medical doctors. There is evidence that Mexican Americans are more likely to visit a family physician than a mental health clinician when they initially experience emotional distress (Flaskerud, 1986; Karno, Ross, & Caper, 1969; Sandoval & De la Poza, 1986; Wells, Hough, Golding, Burnam, & Karno, 1987). A potential explanation for this is that Mexican Americans tend to express emotional distress through physiological symptoms and therefore seek physicians for their somatic concerns. For instance, Karno and Edgerton (1974) administered a survey in East Los Angeles and found that Mexican Americans were more likely to perceive depression as an inherited physical sickness than their Non-Latino White counterparts.

Another potential explanation for the reliance on physicians is that many Latinos seek to avoid the stigma associated with seeking treatment from a mental health provider (Gonzalez, 1997). Wells et al. (1987) found that less acculturated Mexican Americans were twice as likely to seek primary care providers (i.e., physicians) for psychological problems than more acculturated Mexican Americans.

Social/familial support. Among the alternative, informal resources for Mexican Americans experiencing psychological distress, the existing literature suggests that social and familial support are the most common. It is widely agreed that Latinos seek family support prior to seeking help from a mental health provider. Raymond, Rhoads, & Raymond (1980) and Schumm et al. (1988) reported that relying on the family as a primary source of emotional support, psychological reassurance, and mental health care is the greatest contributor to underutilization of professional mental health services by Latino individuals.

More recent studies also supported the idea that Mexican Americans seek support from family and friends when undergoing emotional distress (Echeverry, 1997; Leong, Wagner, & Tata, 1995; Vega & Rumbaut, 1991). For instance, Constantine, Wilton, and Caldwell (2003) found that Latino college students are more likely to consult either members of their family or their peer group when in distress than African American students. To further illustrate this point, Golding and Wells (1990) found that a lack of social support from family and friends motivated Mexican Americans to seek professional mental health services. Thus, when Mexican Americans perceive that they

have strong social and/or family support, they are less likely to seek psychological treatment.

Barriers to mental health care. The third reason Mexican Americans underutilize professional psychological services concerns barriers that impede their ability and/or willingness to seek professional mental health services (Sue, Fujino, Hu, Takeuchi, & Zane, 1991). Rogler et al. (1983) proposed a Barrier Theory and explained that underutilization is a result of structural impediments to professional mental health care. For example, Woodward, Dwinell, and Arons (1992) identified four specific types of barriers that Mexican Americans face in utilizing mental health services:

- affordability – the inability to pay for mental health services;
- availability – the lack of mental health facilities in Mexican American communities;
- accessibility – the inability to travel to and from mental health facilities or the lack of knowledge about how and where to obtain services; and
- acceptability – the negative social stigma related to seeking or receiving professional mental health services.

The authors report that these barriers perpetuate the underutilization of mental health services by Mexican Americans.

There is good evidence that the availability, accessibility, and acceptability of mental health resources contribute to the underutilization of mental health services by Mexican Americans. For example, a creative ethnography by Garcia and Saewyc (2007) elicited perceptions of mental health services by 25 adolescent immigrants from Mexico.

Based on their findings, Garcia and Saewyc (2007) suggested that, although all adolescents were able to identify mental health problems and healthy ways to cope with emotional problems (e.g., social support and exercise), none of the participants mentioned the option of using professional mental health services. This finding is telling and suggests that mental health services may not be perceived as an option by some Mexican Americans.

Other studies have found that (a) insufficient numbers of bilingual mental health providers, (b) lack of culturally congruent mental health services, and (c) language barriers contribute to underutilization (Barerra, 1978; Cabassa, Zaya, & Hansen, 2006; Karno & Morales, 1971; Miranda, Lawson, & Escobar, 2002; Padilla & Ruiz, 1973). In addition, unfamiliarity with mental health centers and services (Garza, 1981), such as lacking information regarding how and where to receive mental health services (Echeverry, 1997; Prieto et al., 2001), are factors related to underutilization of professional mental health services. That is, it appears that factors related to Latino individuals' status as cultural minorities may impede Mexican American college students from seeking university counseling services.

Potential Mediators Contributing to the Underutilization of Mental Health Services

At the group level, Mexican American's attitudes toward mental illness and mental health treatment, reliance on alternative resources, and barriers contribute to the underutilization of mental health services among Mexican Americans. It is also likely, however, that there are important within-group differences in the use of mental health treatment. For instance, Edgerton and Karno (1971) found significant differences in the

perception and understanding of mental illness between English-speaking and Spanish-speaking Mexican Americans. The authors concluded that sub-cultural differences can influence the perception and understanding of mental illness. Research seems to identify two mediating factors that appear to influence underutilization: (a) acculturation and (b) cultural values.

Acculturation. Acculturation is the process by which both cultural and psychological changes take place within an individual, resulting from having to adjust to two or more cultural values and ideologies (Berry, 2006). Because it occurs after an individual has already been socialized within one culture, it is often described as a form of re-socialization or secondary socialization, and because the values and ideals of the new culture typically differ from those of the primary culture, individuals must learn to balance the differences of the dominant and non-dominant cultures (Berry, 1998; Ramirez & Castaneda, 1974).

Because Non-Latino White culture is more accepting and supportive of mental health treatment than traditional Mexican American culture, researcher have proposed that greater levels of acculturation are likely to be associated with higher levels of treatment utilization among Latinos. Consistent with this notion, Miville and Constantine (2006) found a positive correlation between acculturation and attitudes towards help-seeking behavior among Mexican American college students. The investigators reported that Mexican American college students who endorsed acculturated views were less likely to express negative attitudes toward mental health services and were more likely to seek professional psychological help than Mexican American students who endorsed

traditional values. Acculturation has also been found to moderate Latinos use of alternative resources in times of emotional distress. Taylor, Hurley, and Riley (1986) found that acculturation served as a moderator for using traditional support systems (i.e., family, prayer, etc); Latinos were more likely to use traditional support systems if they showed lower levels of acculturation.

Although there is limited support for the influence of acculturation on mental health and mental health services, a more recent study by Berdahl and Torres Stone (2009) showed that acculturation, which included indices of English language proficiency and time in the US, only partially accounted for underutilization of mental health services among Mexicans. In addition, studies by Riker (1995) and Gloria, Castellanos, Segura-Herrea, and Mayorga (2010) report acculturation does not predict help-seeking attitudes among Mexican American college students. Thus, other cultural factors, such as cultural values, should be examined to better account for the mental health utilization discrepancy.

Cultural Values. Ramirez and Castañeda (1974) proposed that cultures, communities, families, and individuals can be classified on a traditionalism-modernism continuum (Ramirez, 1999). People with traditional lifestyles are characterized as:

- having close-knit ties to the family and community;
- showing respect for authority;
- preferring cooperation to competition; and
- being more spiritually than scientifically orientated when attempting to explain life events.

In contrast, individuals with modern lifestyles tend to:

- value independence from both the family and the community;
- be competitive; and
- place a greater importance on science than spirituality when attempting to explain the mysteries of life.

In general, traditional values are similar to the beliefs held by individuals living in less industrialized countries, such as Mexico, whereas modern values are more comparable to beliefs held in more western and industrialized societies, such as The United States. These values may affect attitudes about seeking professional psychological services.

As mentioned by Ramirez and Castaneda (1974), the traditional Mexican American culture emphasizes certain values that, in turn, can influence the individuals' decisions concerning whether to seek professional psychological help. For example, Karno and Edgerton (1971) and Castro (1996) found evidence that traditional Mexican Americans believe that prayer can "cure" mental illness.

Another more widely studied cultural value is *familismo*, which has been described as a key feature in the Mexican American culture (Marin & Marin, 1991). In general, *familismo* is described as emphasizing interdependent relationships in the family system (Contreras, Mangelsdorf, Rhodes, Diener, & Brunson, 1999). When compared to Non-Latino Whites, Mexican Americans report stronger *familismo* values including family support, obligations to family members, and using family members as referents (Sabogal, Marin, Otero-Sabogal, Marin, & Perez-Stable, 1987). It seems likely that being reared with these values and endorsing these values in adulthood could influence a

person's beliefs and attitudes about mental illness and mental health. In one study, Castro (1996) reported that the level of *familismo* among Mexican American college students was negatively correlated with recognized need for psychological help. He also reported that those Mexican American men who strongly endorsed the traditional cultural value of separation of gender roles were more likely to view mental illness as a social stigma than those Mexican American men who endorsed this value less strongly.

Further support for the notion that acculturation and cultural values affect whether Mexican Americans are likely to seek psychological services from a mental health professional comes from a study by Choi and Gonzalez (2005). Among a sample of geriatric Mexican American patients in two rural towns in Texas, those individuals who identified with traditional values tended to report shame and stigma related to using mental health services (Choi & Gonzalez, 2005). In addition, the participants in the sample reported being distrusting of mental health practices. These findings suggest that those Mexican Americans with traditional values are less likely to seek mental health services than those Mexican Americans with modern values.

Summary of Underutilization of Mental Health Services

Past research indicates that Mexican Americans underutilize professional mental health services compared to Non-Latino Whites and that (a) attitudes toward mental health and mental illness, (b) reliance on alternative informal resources, (c) barriers, (d) low levels of acculturation, and (e) traditional cultural values contribute to this underutilization of psychological services. However, to the author's knowledge, no study has examined these factors simultaneously, or focused on intra-cultural variations on

these factors, in an attempt to predict help-seeking behavior in this population. Furthermore, past research has focused on Mexican American individuals' intent or willingness to seek professional psychological services rather than their actual help-seeking behavior. To gain a more in-depth understanding of why Mexican Americans underutilize professional psychological services, it is important to consider the predictive components of a model that assesses multiple factors simultaneously and focuses on actual help-seeking behavior. In the following section, I review two models that conceptualize the intent to seek mental health services.

Understanding Help-Seeking Behavior

Behavior is a complex process and cannot be predicted based on one single variable. As Wicker (1969) concluded in his literature review about the relationship between people's attitudes toward performing a behavior and actually engaging in the behavior, "attitudes do not predict behaviors." Since this review, social psychologists have improved their theories for understanding behavior. Social psychologists began to include additional determinants of behavior, such as perceived social norms, as well as measuring the individual's intent towards actually performing the behavior (Olson & Zanna, 1993). The most accepted models for understanding behavior are the Theory of Reasoned Action (TRA) and the Theory of Planned Behavior (TPB) (Armitage & Conner, 2001).

Theory of Planned Behavior (TPB). The Theory of Planned Behavior is a commonly and widely accepted model used to explain and predict behavior. The TPB is an extension of the Theory of Reasoned Action (see Figure 1) (TRA: Ajzen & Fishbein,

1980; Fishbein & Ajzen, 1975). Both are well-developed models which have been tested to examine the link between cognitions and health-related behaviors.

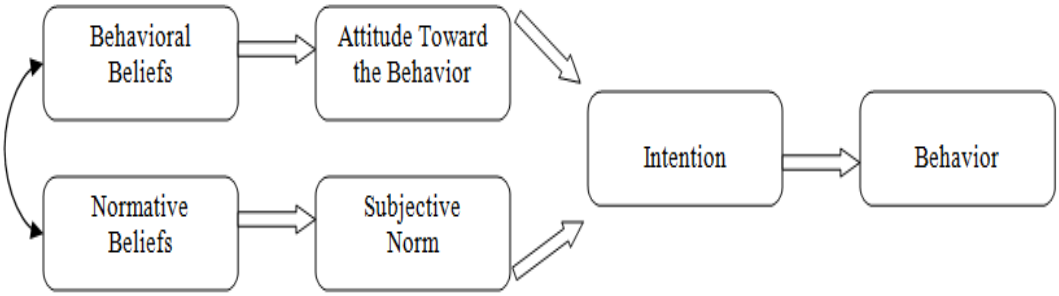


Figure 1. Illustration representing the Theory of Reasoned Action.

Both models, the TRA and the TPB, are used to predict and understand people's behavior (Ajzen, 1985; Fishbein, 1979). The major difference between the two models is that TRA was developed to predict volitional behaviors (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975), whereas the TPB accounts for behavior that is not completely under a person's volitional control. An example of this type of behavior is being court mandated to receive psychological services for anger management. Thus, an additional component of the person's beliefs about his or her ability to perform the behavior was included in the TPB model: perceived behavioral control (PBC; see Figure 2). With the inclusion of PBC, behavior that is not under a person's volitional control can be examined and helps to explain why intent does not always predict behavior (Armitage & Conner, 2001).

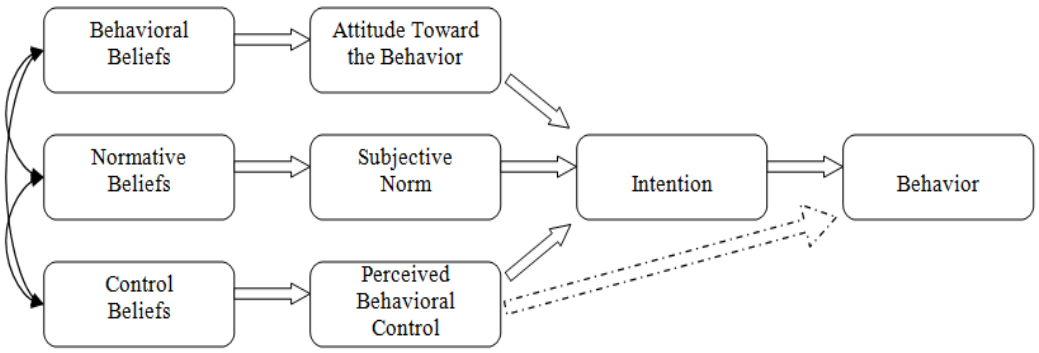


Figure 2. Illustration representing the Theory of Planned Behavior.

The TPB, proposed by Ajzen in 1991, posits that the best predictor of a certain behavior is an individual's intention to perform that specific behavior (Bains, Powell, & Lorenc, 2007; Christian & Abrams, 2004). According to the model, the stronger a person's intent to seek psychological services, the more likely the individual will actually seek them. This model also includes three determinants that influence the intent to perform a certain behavior and leads to performing that behavior (see Figure 2): (a) attitudes toward the behavior, (b) subjective normative beliefs about performing the behavior, and (c) perceived behavioral control of performing the behavior (Ajzen & Manstead, 2007).

Attitudes toward the behavior take into consideration the person's beliefs or expectations of the possible outcome of engaging in a behavior, as well as the possible negative or positive feelings the individual might feel toward performing that given behavior. Subjective norms concern individuals' views of the normative expectations of others (i.e., friends, family, and significant others) about performing the behavior, as well as their own motivation to comply with these perceived expectations. Perceived control

concerns individuals' evaluation of the presence of variables that may facilitate or impede performance of the behavior, as well as the perceived power of these factors on performing the behavior (Ajzen & Manstead, 2007). Thus, PBC is the perceived ease or difficulty of performing the behavior.

Efficacy of the TPB. The TPB model has been evaluated with respect to a wide variety of behaviors: performing self-examinations for breast cancer and testicular cancer (McClenahan, Shevlin, Adamson, Bennett, & O'Neill, 2007; Norman & Hoyle, 2004), exercising (Conner, Rodgers, & Murray, 2007), adhering to medical advice (Kopelowicz et al., 2007), quitting smoking (Kovac, Rise, & Moan, 2009), seeking medical help (Nooijer, Lechenr, & Vries, 2003), and seeking psychological help (Bayer & Peay, 1997; Cabassa & Zayas, 2007; Miller, 2004; Mo & Mak, 2009; Schomerus, Matschinger, & Angermeyer, 2009). Evidence suggests that the TPB is a useful model for predicting a wide range of behaviors and behavioral intentions (Ajzen, 1991; Blue, 1995; Conner & Sparks, 1996; Godin, 1993; Godin & Kok, 1996; Hausenblas, Carron, & Mack, 1997; Manstead & Parker, 1995; Sparks, 1994). In addition, this model has been found to be efficacious among individuals of Latino descent (Bogart, Cecil, & Pinkerton, 2000; Bryan, Ruiz, & O'Neill, 2003; Carvajal, Estrada, & Estrada, 2005; Elizondo, 2004; Martin, Oliver, & McCaughtry, 2007). Furthermore, Armitage and Conner's (2001) meta-analysis of 185 independent studies supported the efficacy of the TPB. Armitage and Conner (2001) reported that the TPB model accounted for 27% of the variance of behavior and 39% of the variance of intention. They also reported that of the three determinates of intention (attitudes, subjective norms, and perceived control), subjective

norms was generally found to be the weakest predictor of intent to perform the behavior. In sum, the TPB has shown to be efficacious in predicting and explaining a wide range of behaviors, including help-seeking behavior.

TRA/TPB and Professional Psychological Help-Seeking

To the author's knowledge, only five studies have focused on understanding psychological help-seeking though the use of TRA and TPB: (1) Bayer and Peay (1997) who sampled people in Australia, (2) Cabassa and Zayas (2007) who sampled Latino immigrants, (3) Schomerus, Matschinger, and Angermeyer (2009) who sampled people in Germany, (4) Miller (2004) who sampled lawyers, the majority of whom were Non-Latino White, and (5) Mo and Mak (2009) who sampled people in China. Because these studies are most highly related to the work proposed here, I describe each study in detail below.

Bayer and Peay (1997) applied the TRA model to understanding the relations of attitudes and subjective normative beliefs to intention to seek professional psychological services. Participants were recruited from a hospital waiting room in Australia. Bayer and Peay (1997) found attitudes toward the behavior and subjective normative belief about performing the behavior accounted for 34% of the variance in predicting the intent to seek professional psychological help. They also reported that attitude toward seeking psychological help was a stronger predictor of intention, contributing 23% of the total accounted variance. In addition, subjective norms offered a unique contribution of only 3%. These findings are consistent with Armitage and Conner's (2001) meta-analysis. Thus both attitudes, measured by behavioral beliefs and outcome evaluations, as well as

subjective normative beliefs, measured by normative beliefs and motivations to comply, were significant predictors of the intent to seek professional psychological services.

In addition, Bayer and Peay (1997) compared likely help-seekers to unlikely help-seekers on attitudes and subjective normative beliefs. Likely and unlikely help-seekers were categorized based on their intention to seek professional psychological services. The authors reported that likely help-seekers more frequently endorsed positive beliefs toward the therapist, than unlikely help-seekers. For instance, likely help-seekers indicated that therapists are accepting, understanding, and maintain confidentiality more often than unlikely help-seekers. Bayer and Peay (1997) also found a significant difference between likely and unlikely help-seekers on subjective normative beliefs; likely help-seekers more often believed family members, friends, and their medical doctors supported their decision to seek mental health services, than unlikely help-seekers. These findings suggest that attitudes and subjective normative beliefs predict a person's intention to seek help from mental health professionals. Moreover, specific attitudes toward therapists and subjective normative beliefs are important determinants of help-seeking behavior.

Cabassas and Zayas (2007) applied the TRA model to the investigation of the role of three cognitive processes (illness perceptions, attitudes toward depression treatments, and subjective normative beliefs) in shaping the intentions of Latino immigrants to seek *informal* (family member, friend, clergy) and *formal* (social worker, primary health care doctors, psychologist, psychiatrist) help for depression. A large proportion of the sample (41%) reported experiencing depressive symptoms.

The investigators found that the three cognitive processes influenced the intention to seek *informal* and *formal* help for depression. For *informal* help, the strongest predictors of the intent to seek help were attitudes reflecting intrinsic spiritually and subjective normative beliefs of family members and friends. For *formal* help the strongest predictors of the intent to seek help were illness perception, attitudes related to the health care provider's interpersonal skills, and subjective normative beliefs of family members. These findings suggest that different themes within attitudes and subjective norms have unique effects with respect to predicting the intent to seek *formal* professional psychological help.

Whereas Bayer and Peay (1997) and Cabassas and Zayas (2007) tested the utility of the TRA model for predicating help-seeking intention, Schomerus, Matschinger, and Angermeyer (2009) examined the TPB model among non-depressed and depressed respondents. These researchers reported that the TPB path model was more predicted among depressed respondents (50% of the variance) than among non-depressed respondents (42% of the variance). They also reported that, among both groups, attitudes toward the behavior was the strongest predicted, followed by subjective normative belief. Behavioral control had a minor influence (Schomerus, Matschinger, and Angermeyer, 2009). The findings suggest that the TPB model may be more accurate among samples with mental health issues than among the general population.

Two additional studies have used the TPB model to examine help-seeking behavior. Miller (2004) examined intention to seek mental health services using both models, the TPB and the TRA, among lawyers. Miller (2004) reported that when

examining help-seeking behavior, the three determinates (attitudes, subjective normative beliefs, and perceived behavioral control) in the TPB model explained more of the total variance than the two determinants (attitudes and subjective normative beliefs) in the TRA model. She reported attitudes, subjective norms, and perceived control explained almost 59% of the variance in intention to seek mental health treatment, while the TRA model explained 35% of the variance. Mo and Mak (2009) also used the TPB model. Although this study reported additional evidence for the importance of subjective normative belief, perceived control belief also predicted intent to seek mental health services. Thus, perceived control belief could be an important predictor to include when investigating intention to seek mental health services.

In summary, the TRA seems useful for predicting the intent to seek professional mental health services among Australians, Latino immigrants, and Non-Latino White lawyers. The TPB may, however, be a more accurate model for predicting the intent to seek professional mental health services. Most importantly, previous studies suggest that comparing individuals who are high and low on intent to seek psychological services and including individuals who are currently experience psychological distress could provide valuable information with respect to finding differences among the TPB determinants.

Applying the TPB Model to Mexican Americans

Although the TPB has not been applied to college students of Mexican origin, there is evidence suggesting the TPB may be useful for understanding professional psychological help-seeking behavior among this group of participants. First, previous research with Mexican American and Latino college students has addressed the different

determinates of the TPB. Second, the TPB has been found to be effective in predicting an array of behaviors among Mexican Americans (Bogart, Cecil, & Pinkerton, 2000; Bryan, Ruiz, and O'Neill, 2003; Carvajal, Estrada, and Estrada, 2005; Elizondo, 2004; Martin, Oliver, McCaughtry, 2007). Third, the TPB has also been found to be effective in predicting an individual's intent to seek professional psychological help. Thus, utilizing an established model such as the TPB could allow for an investigation of all determinates within the same study. In turn, exploring these factors related to help-seeking may provide guidance for developing and providing effective interventions intended to promote the use of mental health services (Mo & Mak, 2009).

To improve understanding for this issue related to the underutilization of mental health services among Mexican Americans and build on the findings by Bayer and Peay (1997), Cabassas and Zayas (2007), Schomerus, Matschinger, and Angermeyer (2009), Miller (2004), and Mo and Mak (2009), two additional elements need to be included. First, it is important to compare college students of Mexican origin who sought psychological services with college students of Mexican origin who did not seek out psychological services. These groups are likely to differ in important ways. For instance, subjective normative beliefs may predict intention to seek psychological services among *help-seeking* (but not *non help-seeking*) college students of Mexican origin. Second, it is important to include only students who are experiencing psychological distress and may actually need counseling services, as demonstrated by Cabassas and Zayas (2007) and Schomerus, Matschinger, and Angermeyer (2009). Because people who seek psychological services are undergoing some form of

psychological distress, the opinions of such participants will provide a more in depth understanding of underutilization. Thus, designing a comprehensive study would contribute greatly to the literature of understanding why college students of Mexican origin underutilize services. In this study, I examined multiple factors (attitudes, subjective normative beliefs, and perceived behavioral control) simultaneously, measuring actual help-seeking behavior, and assessing college students of Mexican origin experiencing anxious or depressive symptoms.

Present Study

This study attempted to understand the factors that influence help-seeking behavior with regard to professional psychological services in college students of Mexican origin suffering from anxious or depressive symptoms. The theory of planned behavior (TPB) was used to examine this issue. The TPB was an aid in understanding help-seeking with respect to mental health services (Saunders, 1993; Saunders, 1996). The model assumes that intent is a significant predictor of help-seeking behavior and proposes that there are three determinants of this type of behavior: attitudes, subjective normative beliefs, and perceived behavioral control. Furthermore, college students of Mexican origin who sought treatment were compared to college students of Mexican origin who did not seek treatment to better understand the factors that predict behavior among these two groups.

This project contributes to the field of culture and mental health by enhancing understanding of why college students of Mexican origin underutilize psychological services. As Saunders (1996) concluded, "understanding mental health help-seeking

behavior is a complex phenomenon; however, by understanding this, behavioral interventions can be developed to improve help-seeking behavior." Through examining underutilizing with quantitative (TPB questionnaire) and qualitative (open-ended questions) approaches, it is possible to identify specific antecedent beliefs, attitudes, and cultural factors that contribute to the underutilizing of psychological services among college students of Mexican origin. This information can then lead to the development of psychoeducational interventions which might encourage help-seeking for those individuals experiencing significant symptoms of anxiety and depression.

Hypotheses

Hypothesis 1: Acculturation and cultural values will mediate determinants in the TPB model. It was hypothesized that acculturation and cultural values will serve as mediators. Individuals who are more acculturated and identify with modern cultural values will report more favorable attitudes, subjective norms, perceived control, intention, and help-seeking behavior than individuals who are less acculturated and identify with traditional cultural values.

Hypothesis 2: The TPB model and cultural variables (acculturation and cultural values) will differ among help-seekers and non help-seekers. It was predicted that the TPB model would be more effective for predicting intentions through the determinants (attitudes, subjective normative beliefs, and perceived behavioral control) and cultural variables (acculturation and cultural values) among *help-seekers* than *non help-seekers*.

Hypothesis 3: TPB determinants will significantly predict help-seeking behavior. It was hypothesized that the TPB determinants (attitudes, subjective normative beliefs, perceived behavioral control, and intent) will significantly predict help-seeking behavior while controlling for the remaining factors.

Hypothesis 4: Acculturation and cultural values will significantly predict help-seeking behavior. It was hypothesized that acculturation and cultural values will significantly predict help-seeking behavior while controlling for the TPB factors.

Hypothesis 5: Help-seekers and non help-seekers will differ on each of the seven steps in the help-seeking process. It was predicted that *help-seekers* will report significantly more ease on each of the seven steps in the help-seeking process compared to *non help-seekers*.

Hypothesis 6: Based on the interviews, help-seekers and non help-seekers will differ on self-reported reasons for utilization of psychological services. It was hypothesized *non help-seekers* will be more likely to report (a) negative attitudes about seeking professional psychological services, (b) facing barriers, and (c) seeking informal alternative resources than *help-seekers*.

Chapter 2: Methods

Participants

The initial sample included 175 undergraduates recruited via OPERA (a web-based system to invite introductory psychology students to participate in research) and various Latino student-based organizations at the University of Texas at Austin. Use of the following inclusion criteria reduced the sample from 175 to 148: (a) consider themselves to be of Mexican origin/descent; (b) are 18 years of age or older; and (c) report experiencing elevated anxious and/or depressive symptoms indicated by a total score of 10 or higher on the Beck Anxiety Inventory-II and/or a total score of 9 or higher on the Beck Depression Inventory-Short Form. In addition, 12 participants were excluded because they failed to complete measures during the follow up session. Thus, the final sample size included 136 college students of Mexican origin (100 females, 36 males) who were in the clinical range for anxiety and/or depression.

Participants' age ranged from 18 to 27 (M = 19.0, SD = 1.6). The annual family income among participants ranged from $45,000 to $50,000. The sample included individuals of diverse generational status: 21 (15.4%) were 1st generation (i.e., individuals born in Mexico); 69 (50.7%) were 2nd generation (i.e., individuals born in the United States with at least one parent born in Mexico); 7 (5.1%) were 3rd generation (i.e., individuals who are children of parents born in the United States and all grandparents born in Mexico); 21 (15.4%) were 4th generation (i.e., individuals who are children of parents born in the United States and at least one grandparent born in Mexico); and 18

(13.2%) were 5th or later generation (i.e., individuals who are children of both parents and grandparents born in the United States but have ancestry from Mexico).

Of the 136 participants, 65 individuals were identified as *help-seekers* and 71 were identified as *non help-seekers*.

Measures

Anxiety Measure. The Beck Anxiety Inventory, second edition (BAI-II; Beck, Epstein, Brown, & Steer, 1988) is a 21-item patient-reported measure used to assess overall subjective anxiety. Each item is rated on a 0-3 scale and summed for a range of 0-63. Subjects rate the severity of each symptom over a one week period. A score above 10 is typically considered to indicate clinically significant levels of anxiety. The BAI-II is internally consistent (alpha = .94), with adequate test-retest reliability (.75 for 1 week and .67 for 2 weeks).

Depression Measure. The Beck Depression Inventory, Short Form (BDI-SF; Beck & Steer, 1993) is a 13-item self-report measure designed to screen for depressive symptoms. Each item is rated on a 0-3 scale and summed for a range of 0-39. Subjects rate the severity of each symptom over a one week period. The BDI-SF scores correlate 0.61 with clinicians' ratings of severity and 0.96 with the BDI. In addition, Beck and Steer (1993) demonstrated adequate reliability and validity. A score above a 9 is typically considered to indicate moderate to severe depression (Furlanetto, Mendlowicz, & Bueno, 2005).

Help-Seeking Behavior. Participants were asked whether they had used the resources recommended to them (i.e., making an appointment at the University

Counseling Center or at the Clinical Training Clinic, using self-help books, or using information on the web) to alleviate emotional distress (i.e., anxiety, depression, academic stress, family stress, or personal stress). Help-seeking behavior was measured as a dichotomous variable: (1) *Help-seekers* were individuals who sought professional mental health services (i.e., made an appointment at the University Counseling Center or at the Clinical Training Clinic, made an appointment or spoke with their current or previous therapist, or joined a group at the University Counseling Center). (2) *Non help-seekers* were individuals who did not seek professional psychological help (i.e., they did not use the resources provided to them).

Help-Seeking Intention. The intent to seek professional mental health treatment was measured two ways: (1) across *specific contexts* and (2) across a *global context*. To assess the *specific contexts*, participants were asked about their intention of seeking help across five different emotional problems: anxiety, depression, academic stress (i.e., stress related to academic demand or performance), family stress (i.e., stress related to family pressures or expectations), and personal stress (i.e., stress related to balancing work while attending school, stress related to being in a romantic relationship, etc.). For each question, participants were asked to assume that the content is causing significant distress or is interfering significantly with their lives. Participants rated their degree of intention to seek professional psychological treatment for each of the five emotional problems on a 7-point scale ranging from "very likely" (3) to "very unlikely" (-3). The total intention score was calculated by averaging the sum of ratings on the five emotional problems. This yields a range of scores from "3" meaning the intent toward seeking professional

psychological treatment is very favorable to "-3" meaning the intent toward help-seeking is very unfavorable.

To obtain the *global context* rating, participants were asked about their intention to seek psychological help assuming they are experiencing emotional difficulties that are causing significant distress or is interfering significantly with their lives. Participants rated their intention to seek professional psychological treatment for emotional difficulties on a 7-point scale ranging from "very likely" (3) to "very unlikely" (-3). This yields a range of scores from "3" meaning the intent toward seeking professional psychological treatment is very favorable to "-3" meaning the intent toward help-seeking is very unfavorable.

Attitudes toward help-seeking behavior. The attitude toward help-seeking behavior was also measured in two ways: (1) *belief-based* measure of attitudes and (2) *global* attitudes toward help-seeking behavior. The *belief-based* measure is comprised of sixteen consequences related to help-seeking: three positive consequences (i.e., "[help-seeking] will help me overcome problems I am having.") and thirteen negative consequences (i.e., "[Help-seeking] will make me appear weak." "[Help-seeking] will probably not help me." "[Help-seeking] will result in people thinking I am crazy."). For each of the sixteen consequences, participants rated the (a) likelihood of the consequence (belief strength) and (b) acceptability of the consequence (evaluation). Following Ajzen (1991), the likelihood and the acceptability were measured on a 7-point scale. Bipolar scoring (+3 to -3) for likelihood and acceptability was used because it made the most intuitive sense and because it produces stronger correlations with the global attitudes

measure (Ajzen, 1991). The possible responses and point values of likelihood (belief strength) and acceptability (evaluation) are:

Likelihood (belief strength)	**Acceptability (evaluation)**
Very Likely = 3	Very Acceptable = 3
Quite Likely = 2	Quite Acceptable = 2
Slightly Likely = 1	Slightly Acceptable = 1
Neither = 0	Neither = 0
Slightly Unlikely = -1	Slightly Unacceptable = -1
Quite Unlikely = -2	Quite Unacceptable = -2
Very Unlikely = -3	Very Unacceptable = -3

The total *belief-based* score was calculated by averaging the summed products of the 16 items. Total scores range from +9 to -9, with higher positive scores indicating more favorable attitudes toward seeking professional psychological services (i.e., positive consequences of help-seeking are viewed as likely and acceptable or negative consequences of help-seeking are viewed as unlikely and unacceptable) and higher negative scores indicating unfavorable attitudes toward seeking professional psychological services (i.e., positive consequences of help-seeking are viewed as unlikely and acceptable or negative consequences of help-seeking are viewed as likely and unacceptable).

The *global* measure of attitudes toward help-seeking consisted of four continuous items (good-bad, wise-unwise, beneficial-harmful, and useful-useless), as in Miller (2004). Participants were asked: "Seeking professional mental health treatment for severe anxiety, depression, academic stress, family stress, or personal stress would be:" "Very (good, wise, beneficial, or useful)" = 3, "Quite (good, wise, beneficial, or useful)" = 2, "Slightly (good, wise, beneficial, or useful)" = 1, "Neither (good, wise, beneficial, or

useful)" = 0, "Slightly (bad, unwise, harmful, or useless)" = -1, "Quite (bad, unwise, harmful, or useless)" = -2, "Very (bad, unwise, harmful, or useless)" = -3. The total *global* attitudes score was calculated by averaging the sum of scale scores. This yields scores ranging from "3," representing very favorable attitudes, to "-3," representing very unfavorable attitudes.

Subjective Norms. Beliefs about subjective norms were measured in two ways: (1) *belief-based* measure of subjective normative beliefs and (2) *global* subjective normative beliefs. Following Ajzen (1991), the *belief-based* measure required participants to rate: (a) the likelihood (belief strength) that important referent individuals or groups would approve of help-seeking behavior and (b) the participant's motivation to comply (motivation) with each referent. The five specific references were: parents, siblings, extended family, significant others, and friends. The possible responses and values for the likelihood (belief strength) and motivation to comply (motivation) are:

Likelihood (belief strength)	**Motivation to Comply (motivation)**
Very Likely = 3	Very Much Want = 3
Quite Likely = 2	Quite Want = 2
Slightly Likely = 1	Slightly Want = 1
Neither = 0	Neither = 0
Slightly Unlikely = -1	Slightly Not Want = -1
Quite Unlikely = -2	Quite Not Want = -2
Very Unlikely = -3	Very Much Not Want = -3

The total *belief-based* subjective normative beliefs toward seeking mental health score was calculated by averaging the summed products. Total scores range from +9 to -9, with higher positive scores indicating favorable subjective normative beliefs (i.e., they agree that others approve of help-seeking behavior and are motivated to comply with the

approval or they agree that others disapprove of help-seeking behavior and are unmotivated to comply with the disapproval), higher negative scores indicate unfavorable subjective normative beliefs (i.e., they agree that others disapprove of help-seeking behavior and are motivated to comply with the disapproval or they agree that others approve of help-seeking behavior and are unmotivated to comply with the approval).

To obtain the *global* measure of subjective normative beliefs, participants were asked, "Assuming you are experiencing severe anxiety, depression, academic stress, family stress, or personal stress, how likely is it that most people important to you would want you to seek professional mental health treatment?" and "To what extent would you want to comply with what they want you to do?" The possible responses and values were the same as in the belief-based measures:

Likelihood (belief strength)	**Motivation to Comply (motivation)**
Very Likely = 3	Very Much Want = 3
Quite Likely = 2	Quite Want = 2
Slightly Likely = 1	Slightly Want = 1
Neither = 0	Neither = 0
Slightly Unlikely = -1	Slightly Not Want = -1
Quite Unlikely = -2	Quite Not Want = -2
Very Unlikely = -3	Very Much Not Want = -3

The *global* subjective normative belief scores range from +9 to -9. Individuals with a positive score had favorable subjective norms toward seeking professional psychological services by reporting references wanted them to seek help in times of distress as: (a) likely and motivated to comply or (b) unlikely and unmotivated to comply. Individuals with a negative score had unfavorable subjective norms toward seeking professional

psychological services by reporting references wanted them to seek help in times of distress as: a) unlikely and motivated to comply or b) likely and unmotivated to comply.

Perceived Behavioral Control. Perceived behavioral control of seeking professional mental health services was measured in two ways: (1) *belief-based* measure of perceived control and (2) *global* perceived control toward help-seeking behavior. The *belief-based* measure of perceived control was comprised of twenty-four possible reasons people hesitate to seek professional mental health treatment. The reasons vary from "thinking that talking to a family member is just as helpful" to "whether [the individual] can afford treatment." Participants were asked, "…how likely or unlikely it is that these reasons would stop you from seeking professional mental health treatment assuming you are experiencing severe anxiety, depression, academic stress, family stress, or personal stress." Response options ranged from "very likely" (-3) to "very unlikely" (+3). The total *belief-based* score was calculated by averaging the sum of the twenty-four items and thus total scores range from +3 to -3, with higher positive scores indicating favorable perceived behavioral control and higher negative scores indicating unfavorable perceived behavioral control toward seeking professional psychological services.

To obtain the *global* measure of perceived behavioral control toward help-seeking, participants were asked, "If you felt you needed to seek professional mental health treatment, do you feel like you know where to get these services and how to access them so you can get the help you need?" Scores ranged from 0 to 6, with higher scores indicating greater perceived behavioral control toward seeking professional psychological services. The possible response options and values are:

Perceived Control
Absolutely Yes = 6
A lot = 5
Slightly = 4
Moderately Yes = 3
Some = 2
Very Little = 1
Absolutely No = 0

Steps in help-seeking. To assess the perceived ease or difficulty of each of the seven steps individuals go through to seek mental health services, participants were asked:

(1) "How easy/difficult would it be to admit to yourself you have a problem?"

(2) "Assuming you have admitted you have a problem, how easy/difficult would it be to decide that your problem is related to mental health?"

(3) "Assuming you admitted your problem is related to mental health, how easy/difficult would it be for you to decide that change is needed?"

(4) "Assuming you decide that change is needed, how easy/difficult would it be for you to make an effort to change?"

(5) "Assuming you decide to make an effort to change, how easy/difficult would it be for you to decide that professional mental health treatment may help you?"

(6) "Assuming you decide that professional mental health treatment may help, how easy/difficult would it be to decide to get professional mental health treatment?"

(7) "Assuming you have decided to receive professional mental health treatment, how easy/difficult would it be for you to make an appointment with a professional mental health care provider?"

The possible responses are on a 7-point scale and ranged from "extremely difficult" (-3) to "extremely easy" (+3). Scores were assessed individually for each question. Positive scores reflect a favorable attitude in completing the given step. Negative scores reflect an unfavorable attitude in completing the given step.

Psychological Distress. The Brief Symptoms Inventory (BSI; Derogatis & Spencer, 1983) is a 53-item self-report symptoms scale. Respondents rate the level of distress experiences on a five-point scale, ranging from 0 = "not at all" to 4 = "extremely." The BSI was scored and profiled in terms of three global indices of distress and nine primary dimensions of symptoms. The Global Severity Index (GSI) was used as the measure of psychological distress experienced by participants and the nine primary dimensions of symptoms were used to measure specific symptoms (i.e., depression, anxiety, paranoia, etc.). The GSI has been found to be one of the most reliable indices of the BSI with a coefficient of .90 (Derogatis & Spencer, 1983). Higher GSI scores are indicative of greater degrees of psychological distress. High convergence between BSI scales and like dimensions of the MMPI-II provide good evidence of convergent validity.

Resiliency. Participants completed the Resiliency Scale (RS; Wagnild & Young, 1993). Resilience, more commonly known in a psychoanalytic context as ego-resilience, is defined as psychological vigor or the ability to endure environmental stressors without becoming emotionally distressed (Wagnild & Young, 1993). The RS was used for the

purpose of assessing an individual's resilience using questions that address topics including: "equanimity, perseverance, self-reliance, meaningfulness, and existential aloneness" (Wagnild & Young, 1993, pp. 167-168). The RS is a 25-item self-report questionnaire. Respondents rate the degree to which each statement applies to them on a 7-point continuum: 1 = Strongly Disagree to 7 = Strongly Agree. Sample items include: "I usually manage one way or another," "I can get through difficult times because I've experienced difficulty before," "I do not dwell on things that I can't do anything about," and "When I'm in a difficult situation, I can usually find my way out of it." The resiliency score falls into one of three levels: (a) Low resilience ($\leq$ 120), (b) Moderate resilience (121 to 145), and (c) High resilience ($\geq$ 146). The RS has excellent internal consistency of (r =.91; Wagnild & Young, 1993).

Acculturation. The Acculturation Rating Scale for Mexican Americans-II (ARSMA-II; Cuellar, Arnold, & Maldonado, 1995) has two scales. Scale I is a 30-item scale that measures a person's cultural orientation to the Mexican (17 items) and Anglo (13 items) cultures. The items address language usage, ethnic identity and classification, cultural heritage and behaviors, and ethnic interaction. Respondents rate the items using a five-point Likert scale (1 = "not at all" to 5 = "extremely often"). The total acculturation score is calculated by subtracting the Mexican Orientation Scale (MOS) from the Anglo Orientation Scale (AOS). The acculturation score falls into one of five acculturation levels: (a) Level 1 = very Mexican oriented (< -1.33), (b) Level 2 = Mexican-oriented bicultural ($\geq$-1.33 to $\leq$-.07), (c) Level 3 = slightly Anglo-oriented bicultural (>-.07 to <1.19), (d) Level 4 = strongly Anglo oriented ($\geq$1.19 to $\leq$2.45), and

(e) Level 5 = very assimilated/Anglicized (> 2.45). Cutoff scores to categorize individuals into the different acculturation levels come from Cuellar, Arnold, and Maldonado (1995). The internal reliability for the scale is an alpha of .86 to .88. The ARSMA-II has a high Pearson coefficient (r = .89).

Scale II is an 18-item scale that measures difficulty accepting Anglo culture (6 items), Mexican culture (6 items), and Mexican American culture (6 items). The items address cultural values, beliefs, and customs. Respondents rate the items using a five-point Likert type scale (1 = "not at all" to 5 = "extremely often"). Scores are calculated by taking the sum within each subscale: Anglo marginality (ANGMAR), Mexican marginality (MEXMAR), and Mexican American marginality (MAMARG). Higher scores indicate greater difficulty accepting a particular culture's values, beliefs, and customs.

Family Values. The Family Attitude Scale-Revised (FAS-R; Ramirez, 1999) assesses individuals' degree of identification with traditional Mexican American values and modern Non-Latino White mainstream middle-class values and the balance between their two belief systems. The FAS-R assesses different traditional values related to loyalty to the family, strictness in childrearing, respect for adults, separation of gender roles, male superiority, and time orientation. Participants respond to each item on a four-point Likert scale ranging from "strongly agree" to "strongly disagree." A mean score of all the FAS-R items is calculated for each participant by taking the difference between the mean score of traditional Mexican American values and the mean score of modern Non-Latino White values. A positive score indicates a higher degree of identification

with modern Non-Latino White values, where a negative score indicates a higher degree of identification with traditional Mexican American values. The FAS-R has been used in cross-national studies for parents and adolescent children of Mexican, Mexican American, and Anglo descent (Rodriguez, Ramirez, & Korman, 1999). Data collected from 564 participants in a cross-national study conducted in Mexico and the United States yielded an alpha coefficient of .75 for the entire sample (Rodriguez, Ramirez, & Korman, 1999). Sample items include: "Parents always know what's best for a child" and "Girls should not be allowed to play with toys such as soldiers and footballs."

Semi-structured interview questionnaires. Participants completed both an initial and a follow up interview. Both interviews were designed to examine Mexican American college students' attitudes and beliefs about seeking professional mental health treatment. The initial interview consisted of open-ended questions concerning four broad topics. The first group of questions asked participants why (or why not) they would consider going to the university student counseling center. The second group of questions was related to the barriers associated with seeking professional psychological help. The third group of questions focused on the negative attitudes associated with seeking and receiving professional psychological help. The fourth group of questions was related to seeking alternative informal psychological help when confronted with psychological distress. The interview items are worded to avoid leading questions and do not suggest that Mexican Americans underutilize professional psychological services (see Appendix K for further details).

The follow up interview consisted of open-ended and specific questions based on pilot data targeting why or why not students used one or more of the resources provided to them. The first group of questions asked participants why (or why not) they used the resources provided to them. The second group of questions concerned common reasons, based on pilot data, that individuals use (or fail to use) services (see Appendix L for further details).

Procedure

After meeting the inclusion criteria (i.e., self-identify as being of Mexican descent, at least 18 years of age, experiencing anxious and/or depressive symptoms), participants were invited to join the study. All participants completed a consent form, signing two copies and returning one to the research assistant. Once participants agreed to take part in the study, they kept a copy of the consent form and the research assistant placed the other copy in a binder in a locked cabinet away from any participant data.

Participants were first interviewed by a trained research assistant. Next, participants completed the experimental measures and returned them to the research assistant. Upon completion of measures, research assistants screened the Brief Symptoms Inventory (BSI) scales to assess for suicidal/homicidal thoughts on items 9, 39, and 40. Two participants endorsed suicidal beliefs, without intent or means. On both occasions, research assistants followed protocol and immediately contacted the primary investigator. The primary investigator further assessed the participants and determined the participants were not at risk of self harm or harm to others. Participants were allowed to participate in the study.

After measures were completed, participants were given a list of local resources for receiving psychological services for anxiety and depression and were offered the opportunity to watch a two-minute video on services provided by the University Counseling Center. Participants were contacted two weeks from the date of participation, and a trained research assistant administered the follow up interview. After completing the follow up interview, participants were debriefed.

Chapter 3: Results

Overview

This section will describe the analyses performed to test the study hypotheses. In the first section, I present descriptive statistics concerning demographic characteristics (age, income, etc) of participants categorized as *help-seekers* and *non help-seekers*. In the second section, I examine the roles of attitudes, norms, and beliefs as possible predictors of help-seeking behavior using path analyses in MPlus Version 6.1. That is, I test (a) the utility of the Theory of Planned Behavior (TPB; Ajzen, 1991) for predicting help-seeking behavior among college students of Mexican origin, and (b) whether the addition of acculturation and cultural values as mediators improves the performance of the model. In the third section, also using path analyses, I examine the performance of the TPB model separately for the two groups of interest: those individuals who sought help (i.e., *help-seekers*) and those who did not (i.e., *non help-seekers*). In the fourth section, I examine the unique predictability of the TPB determinants and other variables on help-seeking behavior using logistic regression in SPSS Version 16.0. There were two scores (*global* and *belief-based*) for each determinant. Ajzen (1991) recommended researchers use the *belief-based (*rather than *global)* scores in analyses. However, a close review of the PBC items suggested that the *belief-based* scale was a poor index of the PBC construct, and thus the PBC *global* score was used in place of the PBC *belief-based* score in the analyses reported here. The fifth section presents exploratory descriptive analyses of data stemming from the open-ended interview questionnaires.

Comparison of Demographic Characteristic Among *Help-seekers* and *Non help-seekers*

T-tests were calculated to investigate potential confounding variables on all demographic measures (Table 1). One of the six variables examined, gender, was significant; a greater percentage of *help-seekers* than *non help-seekers* was female. Due to the small number of male participants, gender was not included in subsequent analyses. Because *help-seekers* and *non help-seekers* were comparable on other variables, these factors were not included in the TPB models.

Table 1

Demographic measures of help-seekers and non help-seekers

	Help-seekers n = 65 Mean (SD)	*Non Help-seekers* n = 71 Mean (SD)	Main Effects *df*	*t*	*p*
Age	19.2 (1.7)	18.8 (1.3)	134	-1.36	.17
Income	45K-50K (25K)	45K-50K (25K)	130	-0.43	.67
Generational Status	2.7 (1.4)	2.5 (1.2)	134	-1.04	.30
Resiliency	125.1 (20.3)	129.9 (17.5)	127	1.31	.19
Anxiety	13.1 (8.5)	11.9 (6.3)	127	-0.90	.37
Depression	5.8 (3.7)	5.8 (3.0)	134	-0.05	.96
	# of Females / # of Males		*df*	X^2	*p*
Gender	50 / 15	50 / 21	1	21.50	.001

Test of Performance of TPB Model Among Students of Mexican Origin

I used path analyses in MPlus (version 6.1) to evaluate the TPB model and to test whether acculturation and cultural values mediate the four determinants (attitudes, subjective norms, perceived behavioral control, and intent) of help-seeking behavior.

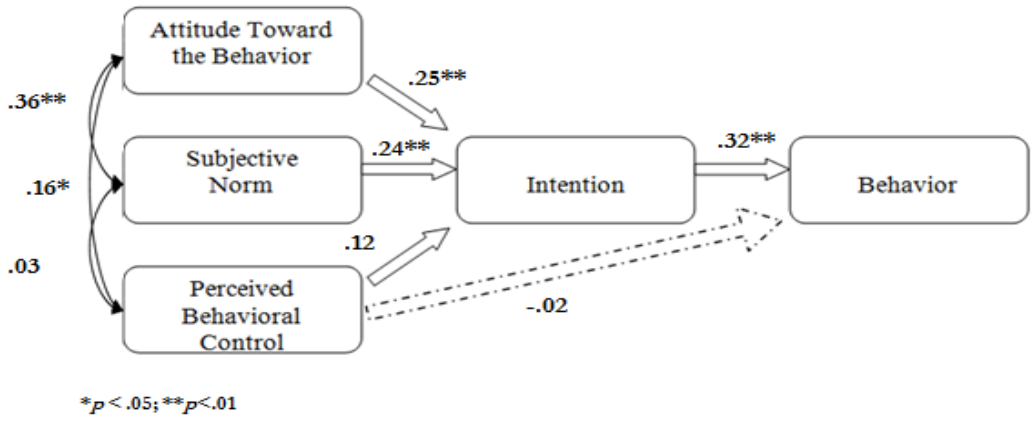
Specifically, I tested the hypothesis that by adding the two variables (acculturation and cultural values) to the TPB model, the fit of the model would be improved significantly (*hypothesis #1*).

Path analysis is a variant of Structural Equation Modeling (SEM) and described as a SEM technique for analyzing structural models with observed rather than latent variables (Kline, 2005). Path analysis involves the estimation of relations among observed variables, but does not speak to causal relations among constructs (Kline, 2005). As described by Kline (2005), there is no absolute standard in the literature regarding sample size. In general, guidelines define a small sample size as N less than 100, a medium sample size as N between 100 and 200, and a large sample size as N greater than 200. This study used a medium sample size of 136 participants. In addition, there are several fit indices to assess how well the proposed model fits the sample data. The current standard described in Kline (2005) includes: (1) the chi-square statistic; (2) the Steiger-Lind root mean square error of approximation (RMSEA; Steiger, 1990), with its 90% confidence interval; (3) Bentler comparative fit index (CFI, Bentler, 1990); and (4) the standardized root mean square residual (SRMR). The chi-square test indicates the amount of difference between expected and observed covariance matrices. The chi-square is actually a "badness-of-fit" index because the higher its values the worse the model corresponds to the data (Kline, 2005). Kline (2005) described that the closer the chi-square value is to 0 indicates a smaller difference between the expected and observed covariance matrices. Similarity, RMSEA is also a "badness-of-fit" index where a value of 0 indicates the best fit and higher values indicate poor fit. According to Browne &

Cudeck (1993), RMSEA values less than or equal to .05 indicate close approximate fit, RMSEA between .05 and .08 are considered reasonable error of approximation, and RMSEA values equal to or greater than .10 suggests poor fit. CFI, unlike the chi-square value and RMSEA, is an incremental index where typically values greater than .90 may indicate reasonable good fit of the observed model (Hu & Bentler, 1999). For the purpose of this study the weighted root mean square residual (WRSR) will be used in place of SRSR at times. Both the SRSR and the WRMR values are "badness-of-fit" indexes with lower values indicating better fit. According to Yu and Muthen (2002), WRMR values less than 1.0 represent good fit. According to Kline (2005), SRSR values less than .10 represent good fit.

First, the original TPB model was examined among all 136 participants. The results indicated an overall significant fit on all four indices ($\chi^2(2) = 1.21$, p = .55; CFI = 1.00; RMSA = .000 with 90% CI = 0.000-0.147; WRMR = .20). The path model showed the concurrent relationship of two of the TPB model determinants (attitudes toward the behavior and subjective normative beliefs) on intention to seek psychological help among college students of Mexican origin. In addition, intention was a significant predictor of help-seeking behavior and attitudes was significantly correlated with subjective norms and perceived control (see Graph 1). Perceived behavioral control did not predict help-seeking behavior or intention to seek treatment and perceived behavioral control was not correlated with subjective norms. Furthermore, the results indicated a couple of indirect effects. The results revealed a significant indirect effect ($p = .024$) from attitudes to help-seeking behavior, through intention. A second indirect effect ($p = .049$) also resulted

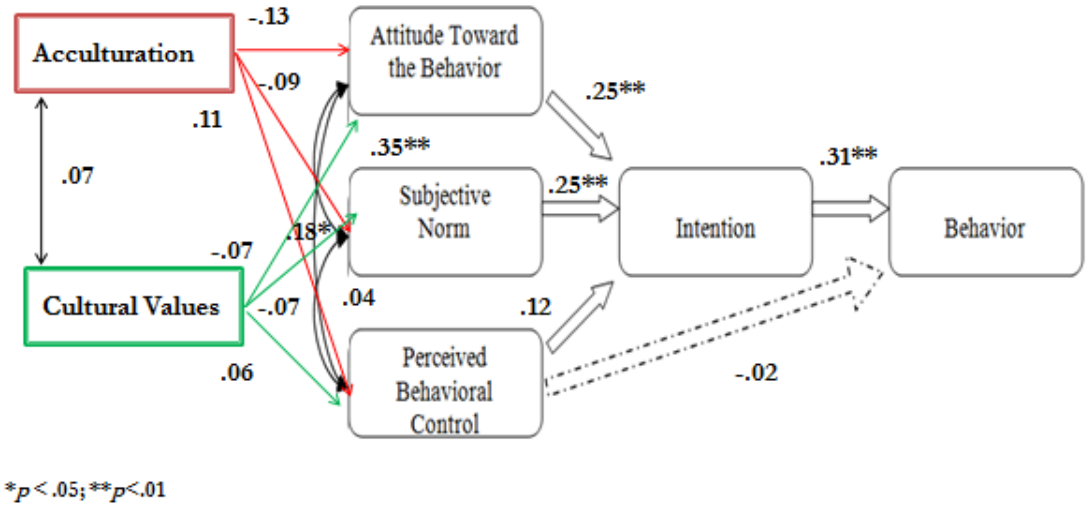
from subjective normative belief to help-seeking behavior, through intention. These results indicate that attitudes toward help-seeking behavior and subjective normative beliefs are strong predictors of seeking psychological help among college students of Mexican origin who are reporting symptoms of anxiety and/or depression. Contrary to previous research regarding the TPB on intention to seek psychological services, this study suggested that subjective normative beliefs was a significant predictor of intention to seek services, whereas perceived behavioral control was not a significant predictor of intention. In previous research, subjective normative beliefs has been found to be a non significant predictor of intention to seek psychological services, whereas perceived behavioral control has been found to be significant predictors of intention.



Graph 1. Path analysis of TPB model among students of Mexican origin.

Second, acculturation and cultural values were added to the TPB model and the fit was reexamined and compared to the overall TPB model. The results indicated an overall significant fit on all four indices, $\chi^2(6) = 6.30$, p = .39; CFI = .99, RMSA = .019 with 90% CI = 0.000-0.114, WRMR = .368. Despite the overall significant model,

adding acculturation and cultural values did not mediate the TPB model. In comparing the paths of both models, one can observe that the values did not change. The addition of acculturation and cultural values did not alter (weaken or strengthen) the relations among the TPB variables. In this TPB model with acculturation and cultural values, there were the same concurrent relationships with two of the TPB model determinants (attitudes toward the behavior and subjective normative beliefs) on intention to seek psychological help. In addition, intention was a significant predictor of behavior and attitudes was significantly correlated with subjective norms and perceived control (see Graph 2). Similar to the results shown in Graph 1, perceived behavioral control did not predict behavior or intent to seek psychological services and was not correlated with subjective norms. Furthermore, acculturation and cultural values did not significantly influence any of the TPB determinants. Again, similar to the results shown in Graph 1, there were significant indirect effects (p = .025) from attitudes to help-seeking, through intention, and an indirect effect (p = .048) from subjective normative belief to behavior, through intention. In sum, contrary to expectations, acculturation and cultural values did not mediate the variables of the TPB model among college students of Mexican origin.



Graph 2. Mediating Effects of Acculturation and Cultural Values on the TPB model.

Comparison of TPB Model Among Help-Seekers and Non Help-Seekers

Path analyses using MPlus were used to compare the TPB model determinants between *help-seekers* and *non help-seekers*. That is, I tested the hypothesis that the TPB model would be more effective for predicting intentions among those students who sought help than among those students who do not seek help (*hypothesis #2*). Because neither acculturation nor cultural values mediated the effects of TPB model on help-seeking behavior, these variables were not included in the analyses. Thus, attitudes, subjective norms, perceived control, and intent were examined among *help-seekers* and *non help-seekers*. As predicted, the effects of the TPB determinants were different between *help-seekers* and *non help-seekers* (see Graph 3). Graph 3 shows both models for *help-seekers* and *non help-seekers*. The results indicated an overall significant fit on the indices ($\chi^2(2) = 4.18$, p = .38; CFI = .99; RMSA = .03 with 90% CI = 0.000-0.187; SRMR = .03). All four indices indict an overall significant fit.

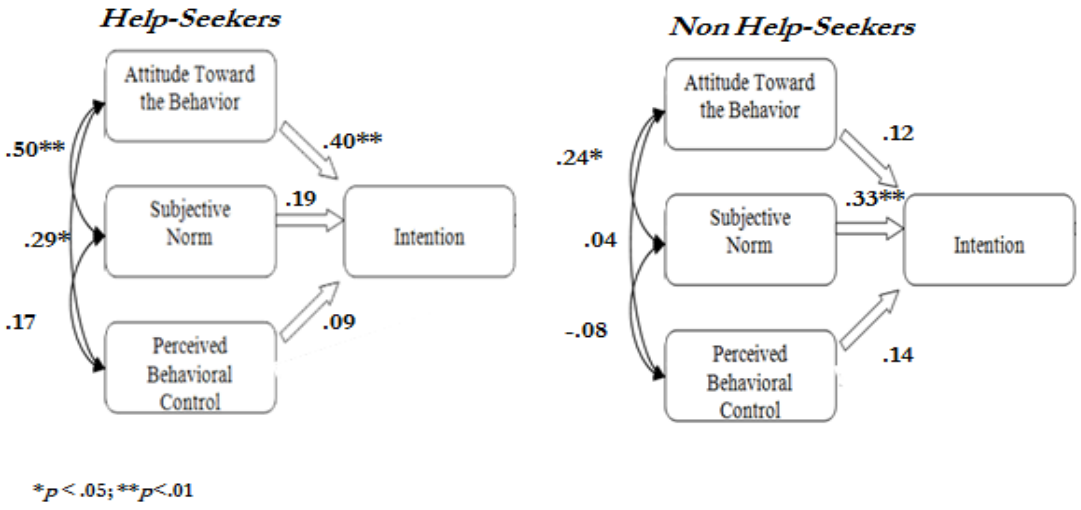
Next, both models were analyzed separately to compare the models on the AIC and BIC indices. Among *help-seekers*, the TPB model indicated fit indices of: AIC = 1086.584 and BIC = 1117.025. In comparison, the results among the *non help-seekers* indicated a weaker fit based on the fit indices of: AIC = 1271.120 and BIC = 1302.789. In comparing both models, the AIC value among *help-seekers* (AIC = 1086.584) is much less that the AIC value of *non help-seekers* (AIC = 1271.120), indicating the model among *help-seekers* is superior to the model among *non help-seekers* in explaining the intention to seek psychological services among college students of Mexican origin.

Additionally, the models revealed paths that operate differently within the two groups. For example, among *help-seekers*, attitudes toward mental health was strongly related to the intention to seek psychological help (see Graph 3). Within this group, there were also statistically significant correlations between (a) attitudes toward mental health and subjective normative beliefs, and (b) attitudes toward mental health and perceived behavioral control. Thus, among *help-seekers*, it seems that more favorable attitudes toward seeking psychological services are predictive of a stronger intent to seek psychological services for anxiety and/or depression.

However, a different pattern was observed among *non help-seekers (*see Graph 3*)*. Subjective normative belief was significantly related to the intention to seek psychological help. Neither attitudes toward mental health nor perceived behavioral control were significant predictors of intention to seek psychological help. In addition, there was a statistically significant correlation between attitudes toward mental health and

subjective normative beliefs. Thus, among *non help-seekers*, the strongest determinant of the intention to seek psychological help was subjective normative beliefs.

In sum, the TPB model was more effective at explaining the determinants among *help-seekers* than *non help-seekers*. Most importantly, among *help-seekers*, attitudes toward mental health was a strong predictor of intention to seek psychological services; whereas, among *non help-seekers*, subjective normative belief was a strong predictor of intention to seek psychological services.



Graph 3. Group differences between *Help-seekers* and *Non help-seekers* on the TPB model.

Predictability of Help-Seeking Behavior

Overview. I next compared and tested the power of (a) previous mental health utilization (as an ad hoc variable), (b) the factors included in the TPB model (i.e., attitudes, subjective norms, perceived behavioral control, and intent), and (c) acculturation and cultural values to help-seeking behavior. I hypothesized that the TPB

factors (attitudes, subjective normative beliefs, perceived behavioral control, and intent) would significantly predict help-seeking behavior (hypothesis # 3). In addition, I hypothesized that acculturation and cultural values would significantly predict help-seeking behavior while controlling for the TPB factors (hypothesis # 4). To address these hypotheses, a series of univariate logistic regressions were run with help-seeking as a dichotomous dependent variable. Table 2 shows the means of all the variables used in the series of univariate logistic regressions.

Table 2 reveals that *help-seekers* showed higher means within each determinant than *non help-seekers*. *Help-seekers*, on average, report a moderate intent (M = 1.45) to seek professional psychological services compared the *non help-seekers* who, on average, report being indifferent on their intent (M = .48) to seek psychology services. Additionally, both *help-seekers* and *non help-seekers* reported favorable attitudes, subjective norms, and perceived control regarding seeking professional mental health services. There also seems to be a disproportionate number of *help-seekers* who had previous mental health utilization compared to *non help-seekers*, and, as such, previous mental health utilization was included as an ad hoc predictive variable of help-seeking behavior. Furthermore, both *help-seekers* and *non help-seekers* report strong modern values indicted by the FAS, and report Level 3, or a slightly Anglo Oriented bicultural identity, as indicted by the ARSMA. Thus, both *help-seekers* and *non help-seekers* shared similar cultural values and levels of acculturation.

Table 2

Group means among help-seekers and non help-seekers on TPB factors, mediating variables, and previous mental health utilization

	Help-seekers n = 65 Mean (SD)	*Non Help-seekers* n = 71 Mean (SD)
TPB Factors		
Intention	1.45 (1.5)	0.48 (1.9)
Attitudes	2.65 (2.8)	2.10 (2.6)
Subjective Norm	2.98 (2.4)	2.90 (2.8)
Perc Beh Control	3.90 (1.8)	4.00 (1.7)
Mediation Variables		
Acculturation	0.78 (1.1)	0.68 (1.1)
Cultural Values	0.32 (.44)	0.40 (.43)
	# with Prev Exp/ # with No Prev Exp	
Previous Mental Health Utilization	15 / 49	5 / 66

Univariate logistic regression. Before conducting a multivariate logistic regression, a series of univariate logistic regressions were used to determine which variables would be included in the multivariate regression. Previous mental health utilization was coded as a dichotomous variable; participants who had previously undergone psychological services and those who have not. An ad hoc analysis revealed previous mental health utilization was predictive of help-seeking behavior among college students of Mexican origin. In addition, contrary to the hypotheses, intention was the only TPB determinant predictive of help-seeking behavior. Furthermore, neither acculturation nor cultural values were predictive of help-seeking behavior.

Multivariate logistic regression. After a series of univariate logistic regression, only intention of seeking services and previous mental health utilization were significant predictors of help-seeking behavior. Thus, a multivariate logistic regression was preformed with intention and previous mental health utilization as the independent variables and help-seeking as the dependent variable (see Table 3). Results indicated that intent and previous mental health utilization were significant predicts of help-seeking behavior among college students of Mexican origin.

Table 3

Regression of help-seeking behavior on intention and previous mental health utilization

	Beta	S.E	*p*
Predictors			
Intention	0.31	0.11	.005
Previous Mental Health Utilization	1.31	0.57	.021

Steps in help-seeking. A MANCOVA was also conducted to investigate whether there were group differences between *help-seekers* and *non help-seekers* on each of the seven steps in the help-seeking process while controlling for previous mental health utilization. It was hypothesized that group differences would exist in all of the seven steps (*hypothesis #5*). A MANCOVA was used to reduce an inflated alpha and account for effects of previous mental health utilization on the steps in the help-seeking process. The data met the Mauchly's sphericity test (Box's M = 43.17, $F(28, 54330.13) = 1.45$, $p = .058$). In addition, homogeneity of variance was met through non-significant Levene's Test of Equality. Results indicated three significant group difference between *help-*

seekers and *non help-seekers* on the seven steps of the help-seeking process, $F(7, 121) = 3.82$, $p < .001$.

Table 4 summarized the results. There were significant differences on three of the seven steps. Thus, individuals who sought some form on mental health treatment were more likely to report ease with the following steps compared to individuals who did not seek mental health services: (1) Step 1 – admitting that they have a problem, (2) Step 3 – deciding that change would be needed to resolve the problem, and (3) Step 6 – deciding to seek profession mental health treatment. There was no significant difference between *seekers* and *non-seekers* among four steps: (1) Step 2 – recognizing that the problem is related to mental health, (2) Step 4 – deciding that efforts are needed to change, (3) Step 5 – deciding that mental health treatment is needed, and (4) Step 7 – deciding to make an appointment to seek out services. The results demonstrated that participants who seek treatment were significantly more likely to state it would be easy to complete a few, but not all, of the steps involved in seeking treatment than those who did not seek treatment.

Table 4

Group differences among help-seekers and non help-seekers on the 7 steps toward help-seeking

	Help-seekers n = 60 Mean (SD)	*Non Help-seekers* n = 70 Mean (SD)	Main Effects df_{error}	*F*	*p*
Step 1: admit problem	-0.02 (1.8)	-0.73 (1.8)	127	4.15	.04
Step 2: mh related	-0.17 (1.7)	-0.76 (1.8)	127	2.48	.12
Step 3: change needed	1.03 (1.7)	0.24 (1.7)	127	7.67	.01
Step 4: effort to change	-0.50 (1.6)	0.44 (1.7)	127	2.00	.16
Step 5: mh tx needed	0.18 (1.6)	-0.26 (1.8)	127	1.85	.18
Step 6: mh tx sought	0.25 (1.6)	-0.37 (1.9)	127	4.11	.04
Step 7: mh tx appt	0.58 (1.7)	-0.10 (1.9)	127	3.77	.05

Analyses of open-ended responses concerning help-seeking

The interview was designed to ask participants about their opinions of seeking mental health services at the University Counseling and Mental Health Center (UCMHC) and mental health in general. It was hypothesized that *non help-seekers* would be more likely to report traditionally supported reasons (i.e., endorsing negative attitudes about seeking professional psychological services, facing barriers, and seeking informal alternative resources) for underutilization of services at UCMHC than *help-seekers* (*hypothesis # 6*). During the interview, participants were asked whether they would seek services at UCMHC if they were experiencing severe anxiety and/or depression. Individuals who responded, "Yes," were labeled "self-identified *help-seekers*" and asked why they would seek services. Similarly, individuals who responded, "No" were labeled "self-identified *non help-seekers*" and asked why they would not seek services. During

the follow up phase, participants reported whether they utilized any of the resources provided to them. For the purpose of the study, we were only interested in individuals who utilized resources that specifically involved the UCMHC. For example, these individuals had to look up information on the UCMHC website, make an appointment at the UCMHC, join a support group at the UCMHC, or call the UT Hotline. Based on this information, 31 (43.1%) of the 72 self-identified *help-seekers* actually sought out some form of psychological help pertaining to the UCMHC. Additionally, 53 (85.5%) of the 62 self-identified *non help-seekers* did not seek any form of resources specifically related to the UCMHC (see Table 5). Because we were most interested in comparing students who actually sought out mental health services related to the UCMHC versus students who did not seek any mental health service related to UCMHC, the sample was reduced from 72 to 31 among UCMHC *help-seekers* and from 62 to 53 among UCMHC *non help-seekers*.

Table 5 shows the most common reasons for utilization of UCMHC among college students of Mexican origin. As predicted, results show that *non help-seekers* report more traditionally supported reasons for underutilization of services at UCMHC. In particular, *non help-seekers* held strong beliefs regarding negative attitudes toward mental health seeking and using alternative resources instead of mental health services. For instance, 40.0% of *non help-seekers* report that they would not seek mental health services at the UCMHC because doing so would imply that they are not self-sufficient at dealing with personal mental health issues. Additionally, 11.0% of *non help-seekers* report that they are too prideful to seek services at the UCMHC. *Non help-seekers*

(22.6%) also report that they do not seek services because they prefer to seek help from family and friends. Although less frequent, some *non help-seekers* report negative attitudes regarding the counseling center as reasons for not seeking services. These participants report that they do not seek psychological services at UCMHC because the UCMHC is time consuming or the UCMHC would violate confidentiality or the embarrassment associated with physically going to the UCMHC, 7.5% each. This supports previous research that reasons Latinos do not seek psychological services because of their attitudes toward seeking mental health services and having mental illness (Leong, Wagner, & Tata, 1995). Surprisingly, college students of Mexican origin did not report any barriers (i.e., availability, accessibility, and acceptability) regarding attaining services.

In comparison, *help-seekers* did hold some traditionally supported reasons for underutilization of services at UCMHC, such as seeking psychological services as a last resort. For example, 16.1% of *help-seekers* reported that they would seek treatment if they were unable to self manage the symptoms or if the symptoms were too severe. One interesting finding was one-third of *help-seekers* reported a previous positive experience associated with counseling. This may provide evidence that experiencing seeking services may be a critical component to improving attitudes toward seeking psychological services.

Table 5

Open-Ended Qualitative Responses to Seeking Psychological Services at UCMHC

	UCMHC *Help-Seekers* n = 31 n (%)	UCMHC *Non Help-Seekers* n = 53 n (%)	
Most Common Reasons for Using UCMHC Resources			
Previous positive experience with counseling	10 (32.3%)		
Inability to self manage	5 (16.1%)		
Symptoms too severe	5 (16.1%)		
Novice experience (curiosity)	5 (16.1%)		
Location of UCMHC is convenient	5 (16.1%)		
Most Common Reasons for Not Using UCMHC Resources			
Self-sufficient coping strategies		18 (40.0%)	
Seek help from family or friends		12 (22.6%)	
I am too prideful		6 (11.0%)	
UCMHC is too time consuming		4 (7.5%)	
UCMHC will not maintain confidentiality		4 (7.5%)	
Going to the UCMHC is embarrassing		4 (7.5%)	

To better understand attitudes toward mental illness (specifically severe anxiety and/or depression) and seeking mental health services at UCMHC among college students of Mexican origin, participants were asked their opinions regarding: (1) experiencing a severe anxiety and/or depression, (2) other students seeking services at UCMHC, and (3) personally seeking services at UCMHC. Results indicated both between- and within-group difference (see Table 6).

When participants were asked about attitudes toward having severe anxiety and/or depression, *help-seekers* commonly attribute symptoms to an inability to self-manage (45.2%), symptom severity (19.4%), and being perceived negatively by others (16.1%). In addition, 19.4% of *help-seekers* reported that it was normal to experience severe anxious and depressive symptoms. In comparison, *non help-seekers* attributed these symptoms to being perceived negatively by others (40.0%) and an inability to self-manage (26.4%), to a lesser degree, and symptom severity (26.4%), to a higher degree. In addition, only 7.5% of *non help-seekers* report that severe symptoms related to anxiety and/or depression are "normal" compared to 19.4% of *help-seekers*. Furthermore, 10 of the 18 *non help-seekers* attributed severe anxiety and/or depression to being perceived as being "crazy", compared to 1 of the 5 *help-seekers*. This shows that *non help-seekers* are more likely to attribute psychological symptoms to being perceived negatively by others (e.g., being perceived as "crazy") whereas *help-seekers* are more likely to attribute psychological symptoms to an inability to self manage existing symptoms. This finding is consistent with the TPB in that subjective norms was a stronger predictor of intention to seek services among *non help-seekers* compared to *help-seekers*.

Regarding attitudes toward peers seeking services, *help-seekers* attribute help-seeking behavior by peers to healthy, positive decision making (64.5%) and high symptom severity (35.5%). *Non help-seekers* attributed help-seeking to healthy, positive decision making (41.5%) and an inability to self-manage (30.2%). Interestingly, 8 *non help-seekers* (15.1%) stated that they personally would *not* judge peers who were seeking services negatively compared to 1 *help-seekers (3.2%).*

When participants were asked about their attitudes toward personally seeking psychological services, *help-seekers* attributed their help-seeking behavior to healthy, positive, decision making (90.3%), inability to self-manage (19.4%), and taking advantage of available resources (12.9%). *Non help-seekers* reported their help-seeking behavior as healthy decision making (37.7%) and inability to self manage and being perceived negatively by others (15.1%). Interestingly, all the *non help-seekers* who endorsed "being perceived negatively by others," specifically stated that they would be perceived as "crazy" for seeking psychological services. Additionally, only 2 *non help-seekers* (3.8%) stated that they would take advantage of available resources in the future.

Lastly, within group differences were also observed. Among *help-seekers*, the results showed that, although 45.2% perceived severe anxiety/depression as a inability to self manage, it seemed to be a less important factor for personally seeking services (19.4%) and even less for help-seeking by peers (6.5%). Another interesting finding was that *help-seekers* rated seeking services as a healthy decision more often for themselves than for peers. For example, 64.5% of *help-seekers* reported that seeking services by peers was a healthy decision, and that percentage increased to 90.3% when asked about personally seeking services at UCMHC. This pattern was not observed among *non help-seekers*. Slightly more *non help-seekers* report healthy decision making among peers seeking treatment (41.5%), compare to personally seeking psychology services (37.7%). Furthermore, *non help-seekers* report unfavorable attitudes toward personally seeking psychological services compared to peers seeking services. Among *non help-seekers*, personally seeking psychological services was more commonly perceived as an inability

to self manage symptoms compared to peers seeking psychological services, 37.7% and 30.2%, respectively. Also, *non help-seekers* reported that personally seeking psychological service is more often perceived negatively compared to peers seeking psychological services, 15.1% and 0.0%, respectively. That is, *help-seekers* report personal help-seeking behavior more favorable than peers' help-seeking behavior, whereas *non help-seekers* perceive personal help-seeking behavior less favorable than peers' help-seeking behavior.

Table 6

Qualitative Responses of Attitudes Toward Mental Illness and Seeking Psychological Services at UCMHC

	UCMHC *Help-Seekers* n = 31 n (%)	UCMHC *Non Help-Seekers* n = 53 n (%)	
Attitudes Toward Having Severe Anxiety/Depression			
Inability to self manage symptoms	14 (45.2%)	14 (26.4%)	
High symptom severity	6 (19.4%)	14 (26.4%)	
Symptoms are "normal" experiences	6 (19.4%)	4 (7.5%)	
Perceived negatively by others	5 (16.1%)	18 (40.0%)	
Attitudes Toward Other Students Receiving Services at UCMHC			
Healthy/smart/proactive decision making	20 (64.5%)	22 (41.5%)	
High symptom severity	11 (35.5%)	14 (26.4%)	
Bravery/strength/courageous for seeking help	3 (9.7%)	4 (7.5%)	
Inability to self manage	2 (6.5%)	16 (30.2%)	
I would not judge them negatively	1 (3.2%)	8 (15.1%)	
Attitudes Toward Self Receiving Services at UCMHC			
Healthy/smart/proactive decision making	28 (90.3%)	20 (37.7%)	
Inability to self manage symptoms	6 (19.4%)	20 (37.7%)	
Taking advantage of available resources	4 (12.9%)	2 (3.8%)	
Bravery/strength/courageous for seeking help	3 (9.7%)	4 (7.5%)	
Perceived as being "crazy"	0 (0.0%)	8 (15.1%)	

To better understand perceived barriers reported by college students of Mexican origin regarding the UCMHC, participants were asked about factors that would

encourage and discourage their use of the counseling center (see Table 7). Help-seekers and non help-seekers differed in reporting factors that would encourage seeking services at UCMHC. *Help-seekers* reported that they would be encouraged to seek services at UCMHC if (a) a friend recommended they go (32.3%), (b) their symptoms were too high (29.0%), (c) a family member recommended they go (22.6%), and (d) they had a positive experience with counseling (22.6%). *Non help-seekers* reported that they would be encouraged to seek services at UCMHC if (a) their symptoms were too high (50.9%), (b) the symptoms cause impairment in functions (22.6%), and (c) a friend recommended they go (18.9%). A major difference between *help-seekers* and *non help-seekers* was previous positive experience of psychological services and impairment of functioning. Seven (22.6%) *help-seekers* stated that having a positive previous experience would encourage them to seek services, compare to 0.0% of *non help-seekers*. Similarly, twelve (22.6%) *non help-seekers* stated that if symptoms impaired their functioning they would be encouraged to seek treatment, compared to 0.0% of *help-seekers*. As previous research showed, symptom severity and impairment of functioning support the "crisis" phenomenon to explain Mexican Americans lack of seeking psychological services (Duarte, 2002; Gonzalez, 1997; Jenkins, 1999). Additionally, these results shed some light on the importance of having a positive experience with psychological services and being recommended to seek services from friends or family members.

Help-seekers and *non help-seekers* also differed in reporting factors that would discourage seeking services at UCMHC. *Help-seekers* reported that they would be discouraged to seek services at UCMHC if (a) they were too busy with school (25.8%),

(b) they were able to receive help from friends and family (19.4%), and (c) they falsely perceived their symptoms as not being severe enough (19.4%). *Non help-seekers* reported that they would be discouraged to seek services at UCMHC if (a) they were too busy with school (22.6%), (b) the counselor was judgmental (18.9%), and (c) they were perceived negatively by friends and/or family (7.5%).

Table 7

Qualitative Responses of Perceived Factors That Encourage and Discourage Seeking Psychological Services at UCMHC

	UCMHC *Help-Seekers* n = 31 n (%)	UCMHC *Non Help-Seekers* n = 53 n (%)	
Factors That Encourage Seeking Services at UCMHC			
Recommended by friends	10 (32.3%)	10 (18.9%)	
High symptom severity	9 (29.0%)	27 (50.9%)	
Recommended by family	7 (22.6%)	8 (15.1%)	
Previous positive experience with counseling	7 (22.6%)	0 (0.0%)	
Impairment of functioning	0 (0.0%)	12 (22.6%)	
Factors That Discourage Seeking Services at UCMHC			
Too busy with school	8 (25.8%)	12 (22.6%)	
Able to receive help from friends and/or family	6 (19.4%)	0 (0.0%)	
Falsely perceived symptoms as not severe	6 (19.4%)	0 (0.0%)	
Being perceived negatively by friends and/or family	3 (9.7%)	4 (7.5%)	
Judgmental counselors	0 (0.0%)	10 (18.9%)	

To better understand coping strategies reported by college students of Mexican origin in response to anxiety and/or depression, participants were asked how they cope with emotions related to anxiety and/or depression. Results revealed differences between *help-seekers* and *non help-seekers*. There are many ways to categorize coping strategies. For the purpose of this study, coping strategies were categorized a posteriori into two types: (1) Engagement and (2) Disengagement (Carver & Connor-Smith, 2010). According to Carver and Connor-Smith (2010), engagement coping refers to dealing with the problem (stressful situation) by facing it. In disengagement coping, individuals avoid the feelings associated with the problem and/or event. Within both categories, there were differences between *help-seekers* and *non help-seekers*. For example, 67.7% of *help-seekers* used problem solving to deal with stressful events, compared to 30.2% of *non help-seekers*. In addition, 37.7% of *non help-seekers* were likely to use their friends as social support, compared to 25.8% of *help-seekers*. Regarding disengagement coping responses, both groups were comparable, however, *non help-seekers* were more likely to report using withdrawal as a means of coping with anxiety and/or depression than *help-seekers*. Overall, *help-seekers* more commonly reported using problem solving to cope, whereas *non help-seekers* more commonly report using denial as a coping strategy.

Table 8

Qualitative Responses of Coping Strategies When Experiencing Severe Anxiety and/or Depression

	UCMHC *Help-Seekers* n = 31 n (%)	UCMHC *Non help-seekers* n = 53 n (%)	
Most Common Coping Strategies for Managing Anxiety/Depressive Symptoms			
Engagement Coping Responses			
Use of social support (family)	9 (29.1%)	16 (30.2%)	
Use of social support (friends)	8 (25.8%)	20 (37.7%)	
Problem Solving	41 (67.7%)	16 (30.2%)	
Disengagement Coping Responses			
Denial	14 (45.2%)	26 (49.1%)	
Withdrawal	6 (19.4%)	16 (30.2%)	

Chapter 4: Discussion

Overview

This study investigated possible reasons for underutilization of psychological services among college students of Mexican origin with anxiety and/or depressive symptoms. I used both quantitative and qualitative methods to better understand the reasons for underutilization of psychological services by comparing students of Mexican origin who sought professional psychological services to those who did not. Studies that have examined individuals' opinions of mental health and mental health services typically include participants drawn from the general population; however, the general population is less likely to experience symptoms that warrant seeking psychological service and actual help-seeking behavior has rarely been assessed. The current study addressed these issues by targeting college students of Mexican origin who were experiencing symptoms of anxiety and/or depression that warranted psychological treatment and assessing actual help-seeking behavior. Predictions concerning individuals' behavior were grounded within Ajzen and Manstead's (2007) Theory of Planned Behavior (TPB). In addition, I examined the role of cultural values and acculturation on individuals' help-seeking behavior. Results were expected to inform theoretical work on predicting individuals' use of psychological services and to inform the development of culturally sensitive interventions that would reduce the underutilization of psychological services among individuals of Mexican origin. In this chapter, I briefly review and interpret the major findings of the study. I next discuss the implications of these findings for the mental health treatment of individuals of Mexican

origin. Finally, I discuss the limitations to the study and suggest future directions for research.

Major Findings

Overall, some evidence to support the TPB model for predicting help-seeking behavior among college students of Mexican origin with anxiety and/or depressive symptoms was found. Consistent with TPB, the results indicated attitudes toward help-seeking behavior and subjective normative beliefs predicted intent to seek help, and in turn, intent predicted help-seeking behavior. Unlike previous studies, perceived behavioral control was not predictive of help-seeking intention, nor was it predictive of help-seeking behavior. Possible reasons for this unexpected finding are presented later in the section entitled "limitations." Furthermore, although this model was significant, it explained less of the variance than found in Artmitage and Conner's (2001) meta-analysis study. Aritmitage and Conner (2001) reported that the TPB model accounted for 27% of the variance of behavior and 39% of the variance of intention. In this study, the TPB model accounted for 16% of the variance of behavior and 23% of the variance of intention. Consistent with Cabassa and Zayas (2007) and Mo and Mak (2009), who used Latino immigrant and Chinese samples, subjective normative beliefs significantly predicted help-seeking intention. In comparison, Miller (2004), who used a Non-Latino White sample, reported subjective normative beliefs as a non-significant predictor of help-seeking intention. This may be a unique factor among collectivist cultures, such as Mexican and Mexican American culture, which are more likely to hold strong values of familismo (Sabogal et al., 1987). That is, college students of Mexican origin appear more

likely to engage in a particular behavior, including seeking mental health treatment, when their friends and family approve of the behavior.

Cultural values and acculturation did not mediate the TPB model as originally predicted. Thus the addition of these two variables did not improve the predictive power of the model (i.e., the modified model did not outperform the unmodified TPB model). There are several possible explanations for this finding. One explanation concerns the lack of variability on the measures of acculturation and cultural values. The majority of participants among both the *help-seekers* and *non help-seekers* held modern cultural values and showed moderate levels of acculturation, which were indicative of bicultural individuals. Another possibility is that acculturation and cultural values have little influence on intention to seek psychological services (e.g., Gloria et al., 2010; Riker, 1995), whereas acculturative stress and/or perceived social support may mediate the relationship among the TPB factors. In addition, this observation may be better investigated by using specific cultural values, as in McWilliams, Cox, Enna, and Clara (2006), whom reported that "locus of control", which is a central theme of the fatalism cultural value, was one of the variables related to utilization of mental health services.

This study also had an unexpected major finding. The results of this study revealed a very high rate of help-seeking behavior without an intended intervention. That is, of the 136 participants who qualified for this study, 48% sought mental health services from the university. This is a high rate of help-seeking in comparison to the utilization rates discussed earlier: (1) 6.97% of Mexican Americans reported using mental health care services in the past year (Harris, Edlund, & Larson, 2005), (2) 4.5% of Mexican

Americans report receiving any type of mental healthcare service in the past year (Berdahl & Torres Stone, 2009), and (3) 8% of college students who used the university mental health services identified as Latino (Kearney, Draper, & Baron, 2003). In addition, the unexpected 48% help-seeking rate is more than twice the utilization rate found from all respondents with mood and/or anxiety disorders (20.8%) in the National Comorbidity Survey (Roy-Byrne et al., 2009). Furthermore, the unexpected 48% help-seeking rate is more than thrice the 15% of participants in this study who previously utilized mental health services.

This unexpected finding is open to many possibilities. One possibility is that participants could have been operating on the false presumption that seeking mental health service was a requirement to remain in the study. Another possibility is that the mere procedure of gathering information on mental health utilization and/or presenting mental health information to these participants could have been effective enough to encourage college students of Mexican origin to seek mental health treatment. In this procedure, participants were interviewed and responded to a list of measures associated with utilization of mental health treatment. After completing the measures, participants were informed of their scores on both the anxiety and depression scales, which at least one was in the clinical range. Next, the resource list was, individually, reviewed with the participants and participants were given an opportunity to ask questions. In reviewing the resource list, participants were informed that the university mental health center was free to all students and that there was a wide range of reasons for college students to use these services.

Help-Seekers Versus Non Help-Seekers – Quantitative Findings

In addition to providing some evidence for the predictive power of the TPB model, these results shed light on the factors that differentially shape the behaviors of *help-seekers* and *non help-seekers*. Specifically, among *help-seekers*, attitudes toward services was predictive of intent to seek psychological services; however, among *non help-seekers* that relationship decreased to a non significant level. In addition, among *non help-seekers*, subjective normative belief was predictive of intent to seek psychological service; however, among *help-seekers* that relationship was non significant. These results revealed that group differences within the TPB determinants: attitudes toward psychological services was a stronger predictor among *help-seekers* than *non help-seekers*, whereas subjective normative beliefs was a stronger predictor among *non help-seekers* than *help-seekers.*

It is important to note, however, that unlike the model for *help-seekers*, results indicated that the TPB is a less predictive model of intention to seek services among *non help-seekers* (albeit subjective normative belief was a significant predictor of help-seeking intention among *non help-seekers*.). Among *non help-seekers*, other factors, such as acculturative stress or perceived social support, may influence individuals' intent to seek treatment. As Shim and colleagues (2009) noted, underutilization is a complex, multifaceted topic and additional research is clearly necessary to understand the phenomenon.

Another important finding was that, in general, *help-seekers* reported greater ease completing three of the seven help-seeking steps. The results revealed that there were

significant differences between groups in admitting that they have a problem, acknowledging that change would be needed to resolve the problem, and deciding to seek professional mental health treatment. On Step 1, admitting there is a problem, *help-seekers*, on average, reported being indifferent about admitting there is a problem compared to *non help-seekers*, who reported more difficulties admitting there is a problem. On Step 3, acknowledging that change is needed, both *help-seekers* and *non help-seekers* reported ease on acknowledging that change is needed, however *help-seekers* reported greater ease relative to *non help-seekers*. On Step 6, deciding to seek profession mental health services, *help-seekers* reported more ease deciding to seek profession mental health services compared to *non help-seekers*, who reported more difficulty on this step.

Help-seekers versus Non help-seekers – Qualitative Findings

The qualitative data indicated that *non help-seekers* are more likely to hold negative attitudes and beliefs regarding mental health and mental health services compared to *help-seekers*. When asked their reasons for seeking (or not) psychological services, *help-seekers* reported having a positive previous experience with such services, whereas *non help-seekers* reported being self-sufficient in dealing with mental health issues. This is critical information since most students of Mexican origin who reported a positive experience sought mental health services again. In addition, none of the *non help-seekers* reported failing to seek treatment because of a previous negative experience. Similar findings were reported by Lantican (1998), who stated that the majority of

Mexican American patients at an outpatient mental health facility felt positively about their experience and quality of care.

Results also revealed that students of Mexican origin differed on their perception of individuals seeking mental health services. When students of Mexican origin were asked about their views on peers who seek mental health services, *help-seekers* were more likely to label help-seeking behavior as favorable (e.g., a healthy decision/proactively dealing with emotional distress) compared to *non help-seekers*. When the question was reworded so that students of Mexican origin reported their opinion on peers viewing them seeking mental health services, the grand majority of *help-seekers* labeled their help-seeking behavior as favorable (e.g., a healthy decision/proactively dealing with emotional distress) compared to *non help-seekers*. This information highlights the importance of subjective normative belief, as found through the TPB, among *non help-seekers*. This finding supported the idea that *non help-seekers* may have a preconceived notion that other people (e.g., friends, family) will view help-seeking behavior as stigmatizing.

Another interesting finding was that *help-seekers* and *non help-seekers* suggested different methods that would encourage utilization of psychological services. The majority of *help-seekers* stated that being encouraged by friends and family to seek services would improve utilization of psychological services. Among *non help-seekers*, the majority of these participants stated that high symptom severity would encourage them to seek services. In addition, the vast majority of *non help-seekers* stated that if they decided to seek services, then nothing would discourage them from seeking services.

These findings could provide insight to the barriers for seeking help and how *help-seekers* made the decision to seek treatment. The importance of encouragement to seek treatment and the inability to self determine which symptoms and how much severity warrant seeking psychological services may be critical components of improving utilization of psychological services.

Theoretical and Applied Implications

At the theoretical level, the results of this study suggest that the TPB model, which has been previously tested with Non-Latino Whites, is also useful for predicting help-seeking behavior among college students of Mexican origin. Consistent with the model, attitudes, subjective normative beliefs, and help-seeking intentions accurately predicted help-seeking behaviors among students of Mexican origin. Through this model, subjective normative beliefs and attitudes influence the intention to seek psychological services and the intention to seek psychological services predicts actual help-seeking behavior. Through the use of this model, we have a better understanding of what determinants influence help-seeking behavior. Based on the study findings, attention should be placed on subjective normative belief toward seeking psychological services.

Another implication is the usefulness of qualitative data to help support findings from the TPB model, as well as provide new items to be considered in measuring the determinants. The qualitative data showed the importance of subjective normative belief on the decision to seek psychological services. In addition, based on information from the qualitative data, new items can be incorporated in the TPB. For instance, new items

can be developed into the attitudes determinant of the TPB model to examine the extent to which previous counseling experience influences their attitudes.

The examination of the steps involved in the process of seeking psychological services provided insight to which steps are critical between *help-seekers* and *non help-seekers* when considering seeking psychological services. Based on the results, certain steps are more difficult for *non help-seekers* compared to *help-seekers*. This information can be used to educate college students of Mexican origin on the process of seeking psychological services.

The most applicable implication is using this information to design an intervention to promote help-seeking behavior. Based on the findings of this study, we can use the TPB to direct attention to the importance of subjective normative belief. The few studies (Esters, Cooker, & Ittenback, 1998; Gonzalez, Tinsley, & Kreuder, 2002; Sharp, Hargrove, Johnson, & Deal, 2006) that have used interventions to promote favorable attitudes of mental health and mental health services primarily focused on improving attitudes through education. However, these studies did not focus on subjective normative belief nor did these studies include many participants of Latin descent. In addition, the unexpectedly high rate of help-seeking observed in our sample may be a result of unintentionally targeting the TPB determinant subjective normative beliefs. For example, the procedure of presenting information on mental health services, by a peer, may have inadvertently reduced the stigma associated with students' perceived negative views that others have on them regarding seeking mental health services. Another possibility is that the initial interview questions and questionnaires may have

made students of Mexican origin more aware of their fallacy regarding the positive view of others seeking mental health services compared to the negative view of themselves seeking mental health services. Thus, focusing on subjective normative belief would be critical.

This could be accomplished by showing such findings and discussing the fallacy between the perceived negative view by peers and the actual positive perception of peers on individuals seeking services. An additional approach to target subjective normative beliefs would be to present information suggesting that a high probability of individuals of Mexican origin seek psychological services. For example, Vogel, Wade, Wester, Larson, and Hackler (2007) found that when university students knew someone who had sought psychological help, they were more likely to hold favorable attitudes toward psychological services and reported a higher intent to seek psychological services. Although this study's included a small representation of Latinos compared to Non-Latino Whites (2% vs. 91%, respectively), this highlights the importance of knowing other individuals who have sought psychological services.

Furthermore, based on the findings from the qualitative data, it would be important to incorporate some examples of therapy sessions. These examples would inform the viewer of the experience in receiving psychological services. As many *help-seekers* reported, they sought psychological services because they have a previous positive experience with receiving psychological services. By creating an educational program that provides viewers with this type of experience, individuals may be more likely to seek psychological services.

Limitations

Although this study demonstrated significant findings that the TPB is effective for predicting help-seeking behavior among college students of Mexican origin, there are several limitations to the work. One limitation to the work concerns the sample size. As a result of increasing the inclusion criteria in the population to endorsing depressive and/or anxiety symptoms above clinical threshold, my sample was of only moderate size, especially relative to other studies examining the TPB model. A larger sample size would have provided greater statistical power to improve the explained variance of the TPB model on intention and behavior and made possible analyses aimed at answering additional questions. For example, it might have been possible to compare help-seeking among individuals in the extreme range of anxiety and/or depression versus students in the lower range or moderate range with a larger sample size.

A second limitation to the work concerns the lack of variability among respondents on the measures of acculturation and cultural values. The distribution was heavily weighed with individuals who report being more acculturated and holding bicultural familial values. The lack of representation among less acculturated and traditionally Mexican-oriented individuals may have contributed to the null findings concerning acculturation and cultural values. In addition, both measures, although valid, globally assessed acculturation and cultural values. For example, cultural values was measured with the Family Attitude Scale – Revised (FAS-R) which compares general traditional values with general modern values. However, using a global measure of cultural values, which as the one used, does not capture specific cultural norms that are

most related to help-seeking, such as fatalism (a combination of religious/locus of control views) and some aspects of familismo (namely turning to family when experiencing psychological distress). In addition, other factors that are related to ethnic background, such as college generation status, parent's level of education, and cultural identity, may play a role in the willingness to seek mental health treatment and should be considered in future work.

A third limitation is the failure to account for and control for previous mental health utilization on help-seeking behavior in the TPB model. Because detailed information about individuals' previous mental health utilization (i.e., type of therapy, number of therapy sessions, duration of therapy, and reasons for therapy) was not collected, I was unable to examine how these variables relate to help-seeking behavior. In addition, including previous mental health utilization in the TPB model would greatly reduce the statistical power due to the addition of five paths (i.e., previous mental health utilization to each of the five TPB determinants) and not having a larger sample size. Such information will be important to examine in future work.

A fourth limitation addresses the lack of generalizability to a clinical sample and the lack of generalizability to symptoms other than anxiety and depression. Although the participants of Mexican origin reported symptoms of anxiety and/or depression above clinical threshold, this does imply that it is a clinical sample with diagnosable anxiety and/or mood disorders without the criteria of significant distress and/or impairment. For example, an individual can report high symptoms severity with little to no distress or life impairment. Hence, additional screeners of perceived distress and perceived impairment

of symptoms should have been used to exclude participants with high symptoms but little to no distress or impairment and include participants with low symptoms but moderate to severe distress or impairment. This type of screening would ensure that the sample is reporting elevated distress or impairment due to mental health symptoms, which is an important criterion for a clinical population.

Because the sample was also restricted to individuals reporting anxiety and depressive symptoms, generalizability of the results to other symptoms is limited. For instance, it is possible that results would differ among individuals experiencing subcategories of anxiety and depression or other mental health problems. As the study by Novins, Beals, Croy, and Manson (2008) showed using data for the National Comorbidity Survey, individuals with Generalized Anxiety Disorder (GAD) were more likely to have utilized mental health services compared to individuals with Specific Phobia. This may be a result of individuals with Specific Phobia experiencing little to no distress or impairment. That is, regardless of the information students receive on mental health services, individuals who experience relatively mild or infrequent distress or impairment are unlikely to seek treatment. Additionally, an individual with GAD may seek mental health treatment on the sole basis of being informed that he or she reported symptoms in the clinical range. Regarding other mental health disorders, it would be expected that the findings would differ given the severity and impairment of certain mental health disorders.

A fifth limitation is replacing the Perceived Behavioral Control (PBC) variable with the *global* score instead of the *belief-based* score. The intended PBC score was not

a valid reflection of the PBC construct, thus the global score was used as the PBC variable. Although the global PBC is a reflection of the PBC construct, the belief-specific PBC may have given a better representation of the PBC construct and thereby produced a significant relationship in the TPB model.

A sixth limitation is the generalizability of help-seeking behavior. In this study, help-seeking behavior was a narrowly-defined category. This could have been improved by expanding the category and including additional resources on the resource list. In addition, specific questions (i.e., Did you seek help for *anxiety* from…a medical doctor? a private therapist? a therapist at a mental health center, outside a university? a university mental health center?), should be added to improve understanding of the variety of sources used by college students of Mexican origin.

Finally, this study was limited by requesting participants to assume they are experiencing severe anxiety, depression, academic stress, family stress, or personal stress which causes significant distress or life interference. Although the instructions were met for participants above the clinical threshold of anxiety and/or depression, respondents may have minimized their symptoms.

Future Direction

Because this is one of the first studies to examine help-seeking behavior with a sample of college students of Mexican origin who were above the clinical threshold for anxiety and/or depression, there are many directions to carry future research. However, since there were many limitations in this study, the next logical step would be to replicate this study with a larger sample size of college students of Mexican origin. This would

further support the TPB model in its application among college students of Mexican origin. Furthermore, previous utilization of mental health services could be accounted and controlled for to examine the unique predictability of the TPB determinants on help-seeking behavior. It is strongly encouraged to run a path analysis as opposed to a hierarchical regression. Path analysis allows for multiple variables, particularly the influence of acculturative stress and perceived social support, to be examined simultaneously. It might be especially useful to examine the effects of previous mental health utilization on help-seeking among a sample of college students of Mexican origin that are clinically diagnosed with anxiety and/or depression.

Based on the potential implication of examining how specific and unique cultural values relate to help-seeking behavior, future studies should be thoughtful about the way cultural differences between Non-Latino Whites and individuals of Mexican origin are examined. It is important to deviate from using global cultural values scales or acculturation measures and use specific cultural norms to capture what may be driving these differences in help-seeking among college students. In the future, quantitative and qualitative questions should be specific to the cultural experiences to better understand the cultural factors that contribute to utilization of mental health services among students of Mexican origin.

In addition, the information gathered qualitatively could be measured in a quantitative manner. For example, adding common replies, such as self perception and peer perception of seeking psychological services, can improve the validity of the TPB

determinants. By including such questions and performing an item analysis, the TPB determinants become more valid.

Moreover, future research should test the effectiveness of interventions designed to improve attitudes, subjective normative beliefs, and intention to seek psychological services. For example, one avenue of intervention would be to examine the benefits of presenting information that includes a therapy session. This gives individuals the opportunity to explore the process and expectations of therapeutic services. Through the use of the model, interventions can be tested to determine which of the TPB factors are being influences by specific interventions.

Lastly, based on the unexpected high rate of help-seeking, it is noteworthy to control for the perceived sense of obligation to seek mental health services to ensure that help-seeking behavior is not a result of participant desirability and to examine the process of relaying information of mental health resource to a student body. For example, dissecting this procedure as a form of intervention could be useful in improving mental health utilization among college students of Mexican origin and possibly college students in general. One direction is to examine the difference between presenting mental health information as: a group, individually, or handing a list of resources. Another direction is to examine telling individuals their scores on symptom measures. In sum, there is a need for further investigation on the various methods in which mental health information is presented to a student body. Especially since the unplanned intervention may be targeting subjective normative belief by inadvertently suggesting that mental health services are acceptable and widely used.

Appendix A

Beck Anxiety Inventory – Second Edition

Beck, Epstein, Brown, & Steer (1988)

Instructions: Below is a list on common symptoms of anxiety. Please carefully read each item in the list. Rate how much you have been bothered by each symptom during the PAST WEEK, INCLUDING TODAY using the following scale, by **placing an "X"** which best corresponds to how you are feeling next to each symptom. Please only use the options listed below.

0 1 2 3

	Not at all	**Mildly, it did not bother me much**	**Moderately, it was very unpleasant, but I could stand it**	**Severely, I could barely stand it**
1. Numbness or tingling.				
2. Feeling hot (*not due to heat*).				
3. Wobbliness in legs				
4. Unable to relax.				
5. Fear of the worst happening.				
6. Dizzy or lightheaded.				
7. Heart pounding or racing.				
8. Unsteady.				
9. Terrified.				
10. Nervous.				
11. Feelings of choking.				
12. Hands trembling.				
13. Shaky.				
14. Fear of losing control.				
15. Difficulty breathing.				
16. Fear of dying.				
17. Scared.				
18. Indigestion or discomfort in abdomen.				
19. Faint.				
20. Face Flushed.				
21. Sweating (*not due to heat*).				

Appendix B

Beck Depression Inventory – Short Form

Beck & Steer (1993)

Instructions: This questionnaire consists of 13 groups of statements. Please read each group of statements carefully, and then pick out the **one statement** in each group that best describes the way you have been feeling during the **past two weeks, including today**. Place the number of the statement you have picked on the line provided. If several statements in the group seem to apply equally well, circle the highest number for that group. Be sure that you do not choose more than one statement for that group, including Item 3 (Changes in Sleeping Pattern) or Item 5 (Changes in Appetite).

1. **Worthlessness**
   - 0 I do not feel I am worthless
   - 1 I don't consider myself as worthwhile and useful as I used to be.
   - 2 I feel more worthless as compared to other people.
   - 3 I feel utterly worthless.

2. **Loss of Energy**
   - 0 I have as much energy as ever.
   - 1 I have less energy than I used to have.
   - 2 I don't have enough energy to do very much.
   - 3 I don't have enough energy to do anything.

3. **Changes in Sleeping Pattern**
   - 0 I have not experienced any change in my sleeping pattern.
   - 1a I sleep somewhat more than usual.
   - 1b I sleep somewhat less than usual.
   - 2a I sleep a lot more than usual.
   - 2b I sleep a lot less than usual.
   - 3a I sleep most of the day.
   - 3b I wake up 1-2 hours early and can't get back to sleep.

4. **Irritability**
   - 0 I am no more irritable than usual.
   - 1 I am more irritable than usual.
   - 2 I am much more irritable than usual.
   - 3 I am irritable all the time.

5. Changes in appetite

0 I have not experienced any change in my appetite.
1a My appetite is somewhat less than usual.
1b My appetite is somewhat greater than usual.
2a My appetite is much less than before.
2b My appetite is much greater than before.
3a I have no appetite at all.
3b I crave food all the time.

6. Concentration Difficulty

0 I can concentrate as well as ever.
1 I can't concentrate as well as usual.
2 It's hard to keep my mind on anything for very long.
3 I find I can't concentrate on anything.

7. Tiredness or Fatigue

0 I am no more tired or fatigued than usual.
1 I get more tired or fatigued more easily than usual.
2 I am too tired or fatigued to do a lot of the things I used to do.
3 I am too tired or fatigued to do most of the things I used to do.

8. Loss of Interest in Sex

0 I have not noticed any recent change in my interest in sex.
1 I am less interested in sex than I used to be.
2 I am much less interested in sex now.
3 I have lost interest in sex completely.

9. Guilty

0 I do not feel particularly guilty.
1 I feel bad or unworthy a good part of the time.
2 I feel quite guilty.
3 I feel as though I am very bad or worthless.

10. Sadness

0 I do not feel sad.
1 I feel sad or unhappy.
I am so unhappy or sad all of the time and I can't sleep.
2 I am so unhappy or sad that I can't stand it.

11. Loss of Interest in Other People

0 I have not lost interest in other people.
1 I am less interested in other than I used to be.
2 I have lost all of my interest in other people and have little feeling for them.
3 I have lost all of my interest in other people and don't care about them at all.

12. Failure

0 I do not feel like a failure.
1 I feel I have failed more than the average person.
2 As I look back on my life all I can see is a lot of failures.
3 I feel I am a complete failure as a person.

13. Making Decisions

0 I make decisions about as well as ever.
1 I try to put off making decisions.
2 I have great difficulty in making decisions.
3 I can't make decisions any more.

Appendix C

Efforts Made to Seek Psychological Services

Instructions: (Place an "X" on **Y** for **"Yes"** or **N** for **"No"**) Have you…

Y **N**

___ ___ A. …received psychological services?
IF YES: Where? _____
When?_____
For What? _____

Y **N**

___ ___ 1. …used the UT Counseling & Mental Health Center's (CMHC) website to obtain information about anxiety and/or depression related problem(s)?

___ ___ 2. …used the UT CMHC's website to obtain information about psychological problem(s) other than anxiety or depression?

___ ___ 3. …used the internet (NOT including the UT CMHC website) to obtain information about anxiety and/or depression related problems(s)?

___ ___ 4. …used the internet (NOT including the UT CMHC website) to obtain information about a psychological problem(s) other than anxiety or depression?

___ ___ 5. …called the UT CMHC's Hotline to talk about anxiety and/or depression related problem(s)?

___ ___ 6. …called the UT CMHC's Hotline to talk about psychological problem(s) other than anxiety or depression?

___ ___ 7. …called a Hotline (NOT including the UT CMHC Hotline) to talk about anxiety and/or depression related problems(s)?

___ ___ 8. …called a Hotline (NOT including the UT CMHC Hotline) to talk about psychological problem(s) other than anxiety or depression?

___ ___ 9. …made an appointment to see a counselor at the UT CMHC for anxiety or depression related problem(s)?

___ ___ 10. …made an appointment to see a counselor at the UT CMHC for psychological problem(s) other than anxiety or depression?

___ ___ 11. …made an appointment to see a counselor/psychologist (NOT at the UT CMHC) for anxiety and/or depression related problems(s)?

___ ___ 12. …made an appointment to see a counselor/psychologist (NOT at the UT CMHC) for psychological problem(s) other than anxiety or depression?

Appendix D

Attitudes & Beliefs About Seeking Professional Mental Health Treatment Questionnaire

Modified from Miller (2004)

Attitudes and Beliefs About Seeking Professional Mental Health Treatment Questionnaire

Directions: This questionnaire asks about your attitudes and beliefs about seeking professional mental health treatment for you

Seeking professional mental health treatment is defined as individual and/or group therapy with a counselor, psychotherapist, psychologist or psychiatrist. Professional mental treatment does not include services such as those obtained from clergy or spiritual healers, or talking to friends or family.

When considering these items I ask that you assume you are experiencing severe anxiety, depression, academic stress, family stress, or personal stress (i.e., working while attending school, being in a romantic relationship), which causes significant distress or which interferes significantly with your life (i.e., affects your grades, mood, sleep, etc.).

Ability and Intent

If you felt you needed to seek professional mental health treatment, do you feel like you know where to go, these services and access them in the way you need	Absolutely Yes	A lot Yes	Slight Yes	Moderate Yes	Some Yes	Very Little Yes	Absolutely No

I intend to seek professional mental health treatment if I experience:	Likely						Unlikely
	Very	Quite	Slightly	Neither	Slightly	Quite	Very
emotional distress which causes significant distress or interferes significantly with my life							
anxiety which causes significant distress or interferes significantly with my life							
depression which causes significant distress or interferes significantly with my life							
academic stress which causes significant distress or interferes significantly with my life							
family stress which causes significant distress or interferes significantly with my life							
personal stress which causes significant distress or interferes significantly with my life							

Intent Cont.

I **intend** to use self help material (self help books) if I experience:	**Likely**				**Unlikely**		
	Very	Quite	Slightly	Neither	Slightly	Quite	Very
emotional distress which causes significant distress or interferes significantly with my life.....							
anxiety which causes significant distress or interferes significantly with my life.....							
depression which causes significant distress or interferes significantly with my life.....							
academic stress which causes significant distress or interferes significantly with my life.....							
family stress which causes significant distress or interferes significantly with my life.....							
personal stress which causes significant distress or interferes significantly with my life.....							

I **intend** to seek information online if I experience:	**Likely**				**Unlikely**		
	Very	Quite	Slightly	Neither	Slightly	Quite	Very
emotional distress which causes significant distress or interferes significantly with my life.....							
anxiety which causes significant distress or interferes significantly with my life.....							
depression which causes significant distress or interferes significantly with my life.....							
academic stress which causes significant distress or interferes significantly with my life.....							
family stress which causes significant distress or interferes significantly with my life.....							
personal stress which causes significant distress or interferes significantly with my life.....							

Global Measures of Attitudes

Seeking professional mental health treatment for severe anxiety, depression, academic stress, family stress, or personal stress would be:

Very	Quite	Slightly	Neither	Slightly	Quite	Very	
Good							**Bad**
Wise							**Unwise**
Beneficial							**Harmful**
Useful							**Useless**

Possible Consequences of Seeking Professional Mental Health Treatment

For each of the following possible consequences of seeking professional mental health treatment, please make two ratings. First, **rate how LIKELY or UNLIKELY** such a consequence would be for you. Second, **rate the ACCEPTABILITY** of such a consequence to you if it occurred (that is assuming such a consequence occurred, how good or bad would it be for you)

	Likelihood							**Acceptability**						
	Likely						**Unlikely**	**Acceptable**						**Unacceptable**
	Very	Quite	Slightly	Neither	Slightly	Quite	Very	Very	Quite	Slightly	Neither	Slightly	Quite	Very
Improve the overall quality of my life..														
Make me appear weak……..														
Cause me to lose my friends…….														
Cause my family to fell ashamed of me……														
Cause me to feel isolated from my friends……..														
Cause me to feel isolated from my family……														
Create stress on my friends……...														
Create stress on my family……...														
Probably not help me……														
Resolve my problem……														
Result in people thinking I am "crazy"……..														
Cause me to be hospitalized…….														
Help me overcome problems I am having (anxiety, depression, academic stress, family stress, personal stress)…….														
Make me feel less competent……...														
Require too much time……														
Bring shame to my family…….														

Subjective Norms

For each of the following people/groups of people, please make two ratings. First rate how **LIKELY** or **UNLIKELY** it is that such person/group would want you to seek professional mental health treatment assuming you are experiencing severe anxiety, depression, academic stress, family stress, or personal stress. Second, rate the extent to which you would **WANT TO COMPLY** with what the person/group wants you to do.

	Likelihood they would want me to seek Treatment							I would **want to comply** with what they wanted						
	Likely						**Unlikely**	**Want**						**Not Want**
	Very	Quite	Slightly	Neither	Slightly	Quite	Very	Very Much	Quite	Slightly	Neither	Slightly	Quite	Very Much
Most people who are important to me.....														
My parents.....														
My siblings.....														
My extended family.....														
My significant other.....														
My friends.....														

Reasons People Sometimes Hesitate to Seek Professional Mental Health Treatment

The following are reasons people sometimes hesitate to seek professional mental health treatment. Please rate how **LIKELY** or **UNLIKELY** it is that these would stop you from seeking professional mental health treatment assuming you are experiencing severe anxiety, depression, academic stress, family stress, or personal stress.

	Likely						**Unlikely**
	Very	Quite	Slightly	Neither	Slightly	Quite	Very
Thinking less of myself because I could not solve a problem of my own							
Not wanting to seek treatment from someone in the community where I am from							
Not wanting to seek treatment from someone in the community where I attend school							
What my parents would think of me							
What my siblings would think of me							
What my extended family would think of me							
What my significant other would think of me							
What my friends would think of me							
Thinking of people with strong character can deal with and get over these problems by themselves							
Thinking someone will recognize me at or going to treatment							
Thinking that talking to a family member is just as helpful as seeking treatment							
Thinking that talking to a friend is just as helpful as seeking treatment							
Thinking that talking to a clergy member is just as helpful as seeking treatment							
Not knowing whether treatment will be effective							
Being unaware of what treatment is available							
Not knowing from whom to seek treatment							
Being unsure of how to obtain treatment							
Whether I can afford treatment							
Being unsure if the matter will remain confidential							
Speaking to mental health professional that is ethnicity different than me							
Being unaware of what treatment will involve							
Wondering whether the problem is significant enough to warrant psychological treatment							
Speaking to a mental health professional that will not understand my culture							
If I pray, I would not need to seek psychological services							

Appendix E

Demographic Questionnaire

The following questions ask about background information. For each question you will be asked to select or provide an appropriate response.

1. Gender [ ]Male [ ]Female Age____ College Major_____

2. If you were born outside of the US please indicate the number of years you have lived in the US _____

3. How many years of schooling have you completed? (Circle one)

Elementary school	Junior High	High School	College	Graduate School
0 1 2 3 4 5	6 7 8	9 10 11 12	13 14 15 16	17 18 19 20

4. How many years of schooling have your father and your mother completed? (Circle One)

Elementary school	Junior High	High School	College	Graduate School
Father 0 1 2 3 4 5	6 7 8	9 10 11 12	13 14 15 16	17 18 19 20
Mother 0 1 2 3 4 5	6 7 8	9 10 11 12	13 14 15 16	17 18 19 20

5. What are or where the occupations of your parents? Please specify position and type of institution (e.g. high school teacher in public school, assistant manager for a fast food restaurant, etc).
Father_____
Mother_____

6. What is your and your spouse's/partner's combined income before taxes? If you are a dependent of your parents, provide your parents' combined income before taxes.
[ ]<9,999 [ ]20K-24,999 [ ]35K-39,999 [ ]50K-54,999 [ ]65K-69,999 [ ]80K-89,999
[ ]10K-14,999 [ ]25K-29,999 [ ]40K-44,999 [ ]55K-59,999 [ ]70K-74,999 [ ]90K-99,999
[ ]15K-19,999 [ ]30K-34,999 [ ]45K-49,999 [ ]60K-64,999 [ ]75K-79,999 [ ]>100K

7. How much education do you expect to attain in your lifetime?
[ ]some education [ ]1 or 2 years of graduate or professional study: Master's degree
[ ]B.A. or equivalent [ ] Doctoral degree such as M.D., Ph D., etc

[Circle the generation that best applies to you. Circle only one]

1. 1st generation = You were born in Mexico or other country.
2. 2nd generation = You were born in USA; either parent born in Mexico or other country.
3. 3rd generation = You were born in USA, both parents born in USA and all grandparents born in Mexico or other country.
4. 4th generation = You and your parents born in USA and at least one grandparent born in Mexico or other country with remainder born in the USA
5. 5th or greater generation = You and your parents born in the USA and all grandparents born in the USA.

Appendix F

Brief Symptoms Inventory

Derogatis (1983)

Instructions: Below is a list of problems that people sometimes have. Circle the number which best represents how much that problem distressed or bothered you during the **past month** including today.

	Not at All	A little Bit	Moderately	Quite a Bit	Extremely
	0	1	2	3	4

1. Nervousness or shakiness inside……... 0 1 2 3 4
2. Faintness or dizziness..…… 0 1 2 3 4
3. The idea that someone else can control your thoughts.……... 0 1 2 3 4
4. Feeling others are to blame for most of your troubles…..... 0 1 2 3 4
5. Trouble remembering things…… 0 1 2 3 4
6. Feeling easily annoyed or irritated…….. 0 1 2 3 4
7. Pains in heart or chest…….. 0 1 2 3 4
8. Feeling afraid in open spaces or on the street…….. 0 1 2 3 4
9. Thoughts of ending your life…… 0 1 2 3 4
10. Feeling that most people cannot be trusted…… 0 1 2 3 4
11. Poor appetite……0 1 2 3 4
12. Suddenly scared for no reason…….0 1 2 3 4
13 Temper outbursts that you could not control…….. 0 1 2 3 4
14. Feeling lonely when you are with people……0 1 2 3 4
15. Feeling unable to get things done……0 1 2 3 4
16. Feeling lonely…… 0 1 2 3 4
17. Feeling blue……0 1 2 3 4
18. Feeling no interest in things…… 0 1 2 3 4
19. Feeling fearful…… 0 1 2 3 4

20. Your feelings being easily hurt……0 1 2 3 4

21. Feeling that people are unfriendly or dislike you…….. 0 1 2 3 4

22. Feeling inferior to others…… 0 1 2 3 4

23. Nausea or upset stomach…… 0 1 2 3 4

24. Feeling that you are watched or talked about by others……0 1 2 3 4

25. Trouble falling asleep……0 1 2 3 4

26. Having to check and double check what you do…… 0 1 2 3 4

27. Difficulty making decisions……... 0 1 2 3 4

28. Feeling afraid to travel on buses, subways or trains…….. 0 1 2 3 4

29. Trouble getting your breath…… 0 1 2 3 4

30. Hot or cold spells……0 1 2 3 4

31. Having to avoid certain things, places or activities because they frighten you…0 1 2 3 4

32. Your mind going blank…….. 0 1 2 3 4

33. Numbness or tingling in parts of your body…….. 0 1 2 3 4

34. The idea that you should be punished for your sins…….. 0 1 2 3 4

35. Feeling hopeless about the future…….. 0 1 2 3 4

36. Trouble concentrating…… 0 1 2 3 4

37. Feeling weak in parts of your body……... 0 1 2 3 4

38. Feeling tense or keyed up…….. 0 1 2 3 4

39. Thoughts of death or dying…… 0 1 2 3 4

40. Having urges to beat, injure or harm someone…….. 0 1 2 3 4

41. Having urges to smash things…… 0 1 2 3 4

42. Feeling very self-conscious with others……0 1 2 3 4

43. Feeling uneasy in crowds……... 0 1 2 3 4

44. Never feeling close to another person…… 0 1 2 3 4

45. Spells of terror or panic…… 0 1 2 3 4

46. Getting into frequent arguments…… 0 1 2 3 4

47. Feeling nervous when you are left alone……0 1 2 3 4

48. Others not giving you proper credit for your achievements…….. 0 1 2 3 4

49. Feeling so restless you couldn't sit still…….. 0 1 2 3 4

50. Feelings of worthlessness…….. 0 1 2 3 4

51. Feeling that people will take advantage of you if you let them…… 0 1 2 3 4

52. Feelings of guilt……0 1 2 3 4

53. The idea that something is wrong with your mind……...0 1 2 3 4

Appendix G

Acculturation Rating Scale for Mexican-Americans – II

Cuellar, Arnold, & Maldonado (1995)

SCALE 1

Instructions: *[Circle a number between 1- 5 next to each item that best applies]*

1	2	3	4	5
Not at all	Very little or not very often	Moderately	Much or very often	Extremely often or almost always

1. I speak Spanish	1 2 3 4 5
2. I speak English	1 2 3 4 5
3. I enjoy speaking Spanish	1 2 3 4 5
4. I associate with Anglos	1 2 3 4 5
5. I associate with Mexican and/or Mexican Americans	1 2 3 4 5
6. I enjoy listening to Spanish language music	1 2 3 4 5
7. I enjoy listening to English language music	1 2 3 4 5
8. I enjoy Spanish language TV	1 2 3 4 5
9. I enjoy English language TV	1 2 3 4 5
10. I enjoy English language movies	1 2 3 4 5
11. I enjoy Spanish language movies	1 2 3 4 5
12. I enjoy reading e.g., books in Spanish.	1 2 3 4 5

13. I enjoy reading e.g., books in English.	1 2 3 4 5
14. I write e.g. letters in Spanish	1 2 3 4 5
15. I write e.g., letter in English	1 2 3 4 5
16. My thinking is done in the English language	1 2 3 4 5
17. My thinking is done in the Spanish language	1 2 3 4 5
18. My contact with Mexico has been	1 2 3 4 5
19. My contact with the USA has been	1 2 3 4 5
20. My father identifies or identified himself as a "Mexicano"	1 2 3 4 5
21. My mother identifies or identified herself as a “Mexicana”	1 2 3 4 5
22. My friends, while I was growing up, were of Mexican origin	1 2 3 4 5
23. My friends, while I was growing up, were of Anglo origin	1 2 3 4 5
24. My family cooks Mexican food	1 2 3 4 5
25. My friends now are of Anglo origin	1 2 3 4 5
26. My friends now are of Mexican origin	1 2 3 4 5
27. I like to identify myself as an Anglo American	1 2 3 4 5

28. I like to identify myself as a Mexican American 1 2 3 4 5

29. I like to identify myself as a Mexican 1 2 3 4 5

30. I like to identify myself as an American 1 2 3 4 5

SCALE 2

Instructions: *[Use the scale below to answer questions 1-18 below]*

1	2	3	4	5
Not at all	Very little or not very often	Moderately	Much or very often	Extremely often or almost always

1. I have difficulty accepting ideas held by some Anglos. 1 2 3 4 5

2. I have difficulty accepting certain attitudes held by Anglos. 1 2 3 4 5

3. I have difficulty accepting some behaviors exhibited by Anglos. 1 2 3 4 5

4. I have difficulty accepting some values held by some Anglos. 1 2 3 4 5

5. I have difficulty accepting certain practices and customs commonly found in some Anglos. 1 2 3 4 5

6. I have, or think I would have, difficulty accepting Anglos as close personal friends. 1 2 3 4 5

7. I have difficulty accepting ideas held by some Mexicans. 1 2 3 4 5

8. I have difficulty accepting certain attitudes held by Mexicans. 1 2 3 4 5

9. I have difficulty accepting some behaviors exhibited by Mexicans. 1 2 3 4 5

10. I have difficulty accepting some values held by some Mexicans.	1 2 3 4 5
11. I have difficulty accepting certain practices and customs commonly found in some Mexicans.	1 2 3 4 5
12. I have, or think I would have, difficulty accepting Mexicans as close personal friends.	1 2 3 4 5
13. I have difficulty accepting ideas held by some Mexicans Americans.	1 2 3 4 5
14. I have difficulty accepting certain attitudes held by Mexicans Americans.	1 2 3 4 5
15. I have difficulty accepting some behaviors exhibited by Mexicans Americans.	1 2 3 4 5
16. I have difficulty accepting some values held by Mexicans Americans.	1 2 3 4 5
17. I have difficulty accepting certain practices and customs commonly found in some Mexicans Americans.	1 2 3 4 5
18. I have, or think I would have, difficulty accepting Mexicans Americans as close personal friends.	1 2 3 4 5

Appendix H

Family Attitude Scale – Revised

Ramirez (1999)

Instructions: After each statement, indicate whether you: Strongly Disagree (1); Disagree (2); Agree (3); or Agree Strongly (4). Please check your choice.

RESPONSE CHOICES

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

1. Parents always know what's best for a child.
___ 1 ___ 2 ___ 3 ___ 4

2. A husband should do some of the cooking and house cleaning.
___ 1 ___ 2 ___ 3 ___ 4

3. For a child, the mother should be the most-loved person that exists.
___ 1 ___ 2 ___ 3 ___ 4

4. People who are older tend to be wiser than younger people.
___ 1 ___ 2 ___ 3 ___ 4

5. Girls should not be allowed to play with toys such as soldiers and footballs.
___ 1 ___ 2 ___ 3 ___ 4

6. Children should be taught to question the orders of parents and other authority figures.
___ 1 ___ 2 ___ 3 ___ 4

7. It is more important to respect the father than to love him.
___ 1 ___ 2 ___ 3 ___ 4

8. Boys should not be allowed to play with toys such as dolls and tea sets.
___ 1 ___ 2 ___ 3 ___ 4

9. Men tend to be just as emotional as women.
___ 1 ___ 2 ___ 3 ___ 4

10. It doesn't do any good to try to change the future, because the future is in the hands of God.
___ 1 ___ 2 ___ 3 ___ 4

11. It is all right for a girl to date a boy even if her parents disapprove of him.
___ 1 ___ 2 ___ 3 ___ 4

12. It's all right for a wife to have a job outside the home.
___ 1 ___ 2 ___ 3 ___ 4

13. Uncles, aunts, cousins, and other relatives should always be considered to be more important than friends.
___ 1 ___ 2 ___ 3 ___ 4

14. We must live for today; who knows what tomorrow may bring.
___ 1 ___ 2 ___ 3 ___ 4

15. Young people get rebellious ideas, but as they grow older and wiser they give them up.
___ 1 ___ 2 ___ 3 ___ 4

16. A person should take care of his or her parents when they get old.
___ 1 ___ 2 ___ 3 ___ 4

17. Parents should recognize that a teenage girl needs to be protected more than a teenage boy.
___ 1 ___ 2 ___ 3 ___ 4

18. All adults should be respected.
___ 1 ___ 2 ___ 3 ___ 4

19. The father should be considered to have the most authority in the family.
___ 1 ___ 2 ___ 3 ___ 4

20. A child should not obey his parents if he/she believes that they are wrong.
___ 1 ___ 2 ___ 3 ___ 4

21. It is more important to enjoy the present than to worry about the future.
___ 1 ___ 2 ___ 3 ___ 4

22. The best time in a child's life is when they are completely dependent on their parents.
___ 1 ___ 2 ___ 3 ___ 4

23. The teachings of religion are the best guide for living a good moral life.
___ 1 ___ 2 ___ 3 ___ 4

24. We can attain our goals only if it is the will of God that we do so.
___ 1 ___ 2 ___ 3 ___ 4

25. A child should be taught to be ambitious.
___ 1 ___ 2 ___ 3 ___ 4

26. Fathers should always be respected regardless of any personal problems they might have.
___ 1 ___ 2 ___ 3 ___ 4

27. A husband should take over some of the household chores and child-rearing duties if his wife wants to develop her career interests.
___ 1 ___ 2 ___ 3 ___ 4

28. A teenage boy needs to be protected just as much as a teenage girl.
___ 1 ___ 2 ___ 3 ___ 4

29. Being born into a family that is very well respected in the community is as important as hard work for achieving success.
___ 1 ___ 2 ___ 3 ___ 4

30. A person should be satisfied with his/her economic position without always wanting to achieve more.
___ 1 ___ 2 ___ 3 ___ 4

Appendix I

Steps in the Process of Seeking Professional Mental Health Treatment

Saunders (1996)

There are seven steps to seeking professional mental health treatment. Initial how easy or difficult each step would be for you.

	Easy				Difficult	
	Very	Quite	Slightly	Neither	Slightly	Quite	Very
How easy/difficult would it be to admit to yourself you have a psychological problem?.....							
Assuming you have admitted you have a problem, how easy/difficult would it be to decide that your problem is related to mental health?.....							
Assuming you admitted your problem is related to mental health, how easy/difficult would it be for you to decide that change is needed?.....							
Assuming you decide that change is needed, how easy/difficult would it be for you to make an effort to change?.....							
Assuming you decide to make an effort to change, how easy/difficult would it be for you to decide that professional mental health treatment may help you?.....							
Assuming you decide that professional mental health treatment may help, how easy/difficult would it be to decide to get professional mental health treatment?.....							
Assuming you have decided to receive professional mental health treatment, how easy/difficult would it be for you to make an appointment with a professional mental health care provider?.....							

Appendix J

The Resilience Scale

Wagnild & Young (1987)

Please read the following statements. To the right of each you will find seven numbers, ranging from "1" (Strongly Disagree) on the left to "7" (Strongly Agree) on the right. Circle the number which best indicates your feelings about that statement. For example, if you strongly disagree with a statement, circle "1". If you are neutral, circle "4", and if you strongly agree, circle "7", etc.

	Strongly Disagree						**Strongly Agree**
1. When I make plans, I follow through with them.	1	2	3	4	5	6	7
2. I usually manage one way or another.	1	2	3	4	5	6	7
3. I am able to depend on myself more than anyone else.	1	2	3	4	5	6	7
4. Keeping interested in things is important to me.	1	2	3	4	5	6	7
5. I can be on my own if I have to.	1	2	3	4	5	6	7
6. I feel proud that I have accomplished things in life.	1	2	3	4	5	6	7
7. I usually take things in stride.	1	2	3	4	5	6	7
8. I am friends with myself.	1	2	3	4	5	6	7
9. I feel that I can handle many things at a time.	1	2	3	4	5	6	7
10. I am determined.	1	2	3	4	5	6	7
11. I seldom wonder what the point of it all is.	1	2	3	4	5	6	7
12. I take things one day at a time.	1	2	3	4	5	6	7
13. I can get through difficult times because I've experienced difficulty before.	1	2	3	4	5	6	7
14. I have self-discipline.	1	2	3	4	5	6	7
15. I keep interested in things.	1	2	3	4	5	6	7
16. I can usually find something to laugh about.	1	2	3	4	5	6	7
17. My belief in myself gets me through hard times.	1	2	3	4	5	6	7
18. In an emergency, I'm someone people can generally rely on.	1	2	3	4	5	6	7
19. I can usually look at a situation in a number of ways.	1	2	3	4	5	6	7
20. Sometimes I make myself do things whether I want to or not.	1	2	3	4	5	6	7
21. My life has meaning.	1	2	3	4	5	6	7
22. I do not dwell on things that I can't do anything about.	1	2	3	4	5	6	7
23. When I'm in a difficult situation, I can usually find my way out of it.	1	2	3	4	5	6	7

24. I have enough energy to do what I have to do.	1	2	3	4	5	6	7
25. It's okay if there are people who don't like me.	1	2	3	4	5	6	7

Appendix K

Initial Interview

I. Introduction:

I will be asking you some questions about seeking professional mental health services at the University student Counseling and Mental Health Center. There are no right or wrong answers. Please be as open and honest as you can.

II. General:

#1. If you were experiencing significant emotional distress, for example anxiety and/or sadness would you *consider* going to the University student Counseling Center?

If no: Why would you not go to the University student Counseling Center for help? Any other reasons?

If yes: Would you *actually make an appointment and then go* to the University student Counseling Center? Why or Why not? Any other reasons?

III. Theories of Underutilization:

A. Barriers/Alternative Sources

If "No"

#2a. You mentioned that you would not seek help from the University student Counseling Center. Can you think of situations or reasons that would lead you to change your mind?

#2b. Let us suppose that you did think it would be a good idea to seek help from the University student Counseling Center, is there anything that would prevent or discourage you from actually going?

If "Yes":

#3a. You mentioned that you would seek help from the University student Counseling Center. Can you think of situations or reasons that would lead you to change your mind?

#3b. Let us suppose that you thought it would be a bad idea to seek help from the University student Counseling Center, is there anything that would lead to or encourage you to go?

Barriers:

#6. If you went to the University student Counseling Center to talk to a therapist, how would you *like* them to behave toward you?

#7. Do you believe the therapist would behave that way with you?

If No: How would s/he treat you?

#8. Do you think is it important to have a counselor, psychologist, or therapist who shares your same family experiences and values? Why or why not?

B. Attitudes:

Weakness of Character

#9. If you experience *severe* anxiety and/or sadness, what would that say about you (*how would people in your home town view you? how would people who are important to you think about you? how would you feel about yourself*)?

#10. What are your beliefs about students who go to the university student counseling center to receive psychological treatment?

#11. If you went to the university student counseling center for psychological treatment, what do you think that says about you (*how would people in your home town view you? how would people who are important to you think about you? how would you feel about yourself*)?

Negative views of center

#12. Please tell me five words that come to your mind when you think of the University student Counseling Center?

C. Alternative Resources:

#13. If you were to experience anxiety and/or sadness, how would you cope/deal with it?

Do you think that that would reduce your distress and make you feel better?

Appendix L

Follow Up Interview

I. General Questions:

#1. Since the time that you participated in this study, have you had occasions to use one or more of the resources on the list we provided you (i.e., UT CMHC, their website, Book titled *Feeling Good*)?

If yes: Which ones? How much did each help? 1=Not at all, 5 = Extremely helpful.

#2. Can you give me some reasons why you chose to use (not use) the resources on the list provided to you?

#3. Did anything encourage (discourage) you from using the resources on the list provided to you?

II. Specific Questions:

IF YES:

#4a. Here are some other reasons individuals in previous studies have given as reasons why they would seek help from the resources on the list we provided for you. To what extent do you agree or disagree with each? 1=strongly disagree, 2=agree, 3=neither, 4=disagree, 5=strongly disagree.

-I believe the services are effective
-The service are free and should be taken advantage of
-I believe counselors offer an unbiased opinion
-My symptoms were so bad that I needed to go

#4b. Here are some other common reasons individuals have given as to why they would be encouraged to go to the University student Counseling Center. To what extent do you agree or disagree with each? 1=strongly disagree, 2=agree, 3=neither, 4=disagree, 5=strongly disagree.

-If (friends, family) suggested that I go
-If I know someone who had gone
-If I could not handle my symptoms on my own
-If the services of the University student Counseling Center were more widely advertised

IF NO:

#5a. Here are some other common reasons individuals in previous studies have given as reasons why they would not seek help from the resources on the list we provided for you. To what extent do you agree or disagree with each? 1=strongly disagree, 2=agree, 3=neither, 4=disagree, 5=strongly disagree.

-I am embarrassed to go.

-I would rather talk to (friends, family, priest) or pray

-I feel uncomfortable expressing my emotions and revealing my problems to a stranger

-My problems are not serious enough

#5b. Here are some other reasons individuals have given as to why they would be discouraged from going to the University student Counseling Center. To what extent do you agree or disagree with each? 1=strongly disagree, 2=agree, 3=neither, 4=disagree, 5=strongly disagree.

-The services offered would not help me

-It is embarrassing to have emotional problems

-Someone I know might see me there

-My friend would not go, why should I?

Appendix M

List of Resources

UT Counseling and Mental Health Center

Summary: This center has a wide range of free services for UT students. They offer individual and group counseling, psychiatric help, classes, etc.
Location: Student Services Building (SSB) on the 5th floor
Phone: (512) 471-3515 to make an appointment or inquire about services
Website: http://cmhc.utexas.edu - Take an anonymous self-assessment and see available services.

Clinical Training Clinic

Summary: This clinic is open to anyone who suffers from anxiety and/or depression. The therapists are graduate clinical psychology students. These services are free.
Location: SEA 3.132
Phone: (512) 471-3393 *Email:* Collins@psy.utexas.edu

24-hour Counseling Hotline

Summary: If you want to talk to someone about a problem or feel like you need to talk to someone immediately, call the 24-hour counseling hotline. It is free, anonymous, and open 24/7.
Phone: (512) 471-CALL (2255)

General Online Information

Anxiety: http://www.nimh.nih.gov/health/topics/anxiety-disorders/index.shtml
Depression: http://www.nimh.nih.gov/health/publications/depression/complete-publication.shtml

Self-Help Books:

Summary: Here is a list of recommended self-help books. Each book has a different approach. I recommend reading the reviews of each book and choosing the one(s) that suit your specific needs.
Depression:

*Bieling, Peter & Antony, Martin (2003). Ending the Depression Cycle: A Step-By-Step Guide for Preventing Relapse. New Harbinger
*Burns, David. (1999). Feeling Good: the New Mood Therapy. Avon Books.
*Greenberger, Dennis & Padesky, Christine (1995). Mind Over Mood: Change How You Feel by Changing the Way You Think. Guilford Press
*Knaus, William J (2006). The Cognitive Behavioral Workbook for Depression: A Step-By-Step Program. New Harbinger
*Lozano-Vranich, Belisa & Petit, Jorge R (2004). The Seven Beliefs: A Step-By-Step Guide to Help Latinas Recognize and Overcome Depression. Rayo

*Real, Terrence (1997). I Don't Want to Talk About It: Overcoming the Secret Legacy of Male Depression. Scribner

*Segal, Zindel, et al (2001). Mindfulness-Based Cognitive Therapy for Depression: A New Approach to Preventing Relapse. Guilford Press

Anxiety:

*Bourne, Edmund (2005). The Anxiety and Phobia Workbook. New Harbinger.

*Brantley, Jeffrey & Kabat-Zinn, Jon (2003). Calming your Anxious Mind: How Mindfulness and Compassion Can Free You From Anxiety, Fear and Panic. New harbinger

*Rutledge, Thom (2002). Embracing Fear and Finding the Courage to Live Your Life. Harper San Francisco

*Zuercher-White, Elke (2000). An End to Panic: Breakthrough Techniques for Overcoming Panic Disorder. New Harbinger

*Craske, Michelle & Barlow, David (2000). Mastery of Your Anxiety and Panic III. Graywind Publications

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