Latinos’ Intention to Seek Mental Health Services: A Cultural Adaptation of the Theory of Reasoned Action

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UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

LATINOS’ INTENTION TO SEEK MENTAL HEALTH SERVICES:
A CULTURAL ADAPTATION OF THE THEORY OF
REASONED ACTION

A Dissertation Submitted in Partial Fulfillment
Of the Requirements for the Degree of
Doctor of Philosophy

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College of Education and Behavioral Sciences
Department of Applied Psychology and Counselor Education
Counseling Psychology

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This Dissertation by Jesse Andrew Valdez

Entitled: *Latinos’ Intention to Seek Mental Health Services: A Cultural Adaptation of the Theory of Reasoned Action*

has been approved as meeting the requirement for the Degree of Doctor of Philosophy in the College of Education and Behavioral Sciences in the Department of Applied Psychology and Counselor Education, Program of Counseling Psychology

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ABSTRACT


Latinos are at unique risk for experiencing untreated mental illness. These men face structural, cultural and gender specific barriers that may inhibit their use of counseling services. The current study provided greater insight into the factors that positively influence Latinos intention to seek these services. Building upon previous research, the current bi-lingual study recruited participants from Northern Colorado. Using an empirically supported model for explaining human behavior, the influence of traditional machismo, caballerismo, and attitudes as they relate to Latinos intention to seek counseling services were examined. In addition, the current study included measures of psychological distress, acculturation and enculturation, as well as previous counseling experience, as these factors have been found to independently relate to ratings of intention to seek counseling. Results of the hierarchical regression analysis involved 142 self-identified Latino men which revealed that current psychological distress and attitudes toward seeking mental health services to be significant predictors of intention to seek counseling ratings. Although neither traditional machismo nor caballerismo were found to account for a significant amount of variance in intention ratings, both variables were significantly correlated with attitudes toward seeking mental health services as well as ratings of current psychological distress. Potential implications for the field of counseling
psychology was discussed, including suggestion for improving interventions with clients (i.e., reframing exercises) as well as perceptions of the services provided by our field (i.e., improved attitudes toward seeking mental health services). The lack of statistically significant findings, as well as the exploratory nature of this study, suggested the need for further research to better understand the complex relationships among Latino Masculinity ideologies and attitudes toward seeking mental health services.
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CHAPTER I

INTRODUCTION

This chapter provides an overview of the current study investigating a culturally expanded model of the mental health help-seeking intentions of Latino men. This chapter begins with a discussion of the literature related to the prevalence of mental health disorders, as well as the utilization of mental health services among ethnic minorities and Latinos in particular. Latino gender differences present in the utilization of these services are then discussed, followed by an overview of two variables thought to play an integral role in men’s utilization of mental health services: attitudes toward seeking mental health services and the subjective norms of masculinity ideology. Latino men’s attitudes toward seeking these services, as well as traditional Latino masculinity are examined within the theoretical model of reasoned action. The purpose of the current investigation is then presented, followed by the research questions. The definitions of key terms are then provided before ending with a brief summary.

Prevalence of Mental Illness in the United States

America has one of the highest prevalence rates of mental illness of all developed countries (World Health Organization [WHO], 2004, 2010, 2016). According to the Center for Behavioral Health Statistics and Quality (CBHSQ, 2018), the most current estimates among adults in the United States are: that roughly one in four adults meet criteria for a diagnosable mental illness in the past year. Despite over a decade of literature detailing the empirical support and cost effectiveness for psychological
intervention, a vast number of individuals who meet criteria for a diagnosable mental illness do not utilize mental health services.

Unfortunately, it has become anticipated that as many as half of the individuals in the United States who meet diagnostic criteria will go untreated (CBHSQ, 2018; Kessler et al., 2005). This “provider-service gap” (Raviv, Raviv, Vago-Gefen, & Fink, 2009) between the prevalence of mental illness and the use of mental health services exists across gender (Berger, Addis, Green, Mackowiak, & Goldberg, 2012), and ethnicity (WHO, 2016) impacting millions of Americans.

**Previous Research on Mental Health Utilization**

In an effort to better understand the under-utilization of mental health services, researchers have identified numerous barriers. These barriers can be categorized as: structural, client or cultural and attitudes. Echeverry, (1997) Structural barriers can include: lack of insurance coverage and the high cost of services, as well as the lack of Spanish speaking clinicians. Client and culture variables are those related to the client themselves including: age, gender, ethnicity, language preference and level of acculturation and enculturation. Attitude related barriers include an individual’s perception of themselves as well as others as they relate to mental health services. The following sections will give an overview Latinos mental health help seeking literature.

**Structural Barriers**

Lack of insurance coverage is a commonly cited barrier to counseling services for many Latinos (Berdahl & Torres Stone, 2009; Bridges, Andrews, & Deen., 2012). In addition to lack of insurance, a large number of Latinos live below the poverty line compounding the financial limitations preventing those without insurance from pursuing
services. The general lack of Spanish speaking mental health clinicians in the field may also inhibit many Latinos from utilizing counseling services. It is possible that even Latinos who can speak English may prefer to discuss personal information in Spanish (Echeverry, 1997).

Client and Culture Related Barriers

**Gender differences in mental health utilization.** Distinct gender differences in mental health service utilization have been found, with men being far less likely than women to access these services (Cabassa, 2007; Good, Dell, & Mintz, 1989). Latino men, specifically, are estimated to be half as likely as Latina women to utilize mental health services when needed (Addis & Mahalik, 2003; Sternart, 2015). This means that of the millions of Latino men struggling with mental health, only 1 in 11 are predicted to utilize mental health services (WHO, 2016). Perhaps the most troubling consequence of Latino men’s under-utilization, is that a reported 85% of completed suicides among Latinos/as are completed by Latino men (WHO, 2004; 2010, 2016).

**Ethnic differences in mental health service utilization.** While the prevalence of mental illness does not differ significantly across ethnic groups, the utilization of mental health services does (WHO, 2016). Ethnic minorities tend to access mental health services at a much lower rate than their Caucasian peers (Berdahl & Torres Stone, 2009). Latinos/as have been found to be about half as likely as Caucasian men and women to access these services when in need (CBHSQ, 2018; WHO, 2016).

**Level of acculturation.** The measurement of Latino acculturation is commonly limited to a single item response of language preference or number of years in the United States (Ramos, 2015). According to Cuellar, Arnold, and Maldonado (1995),
Acculturation is a robust construct, comprised of several independent factors that are not captured by language preference or number of years in the United States alone. Although level of acculturation has been found to be significantly related to Latino’s mental health, language preference and number of years in the U.S. alone do not account for Latino men’s lower use of mental health services (Barrera & Longoria, 2018; Ramos, 2015). In addition to being under-studied and under-sampled, the heterogeneity within the Latino population makes it critical that investigations involving this population include a measure of acculturation (Torres, Solberg, & Carlstrom, 2002).

**Psychological distress and previous counseling experience.** After more than three decades of related investigations, many researchers agree that a participant’s current level of psychological distress is a critical variable to include in predicting an individual’s intention to seek psychological services (Cepeda-Benito & Short, 1998; Cramer, 1999; Leech, 2007; Zuvekas & Fleishman, 2008). Similarly, there is also a well-established relationship between previous counseling experience and intention to seek these services again (Fischer & Farina, 1995; Fischer & Turner, 1970).

**Attitude Related Barriers**

**Attitudes toward seeking counseling services.** One of the most commonly identified predictors of men’s intentions to seek mental health services is their attitude toward these services (Fischer & Turner, 1970; Vogel, Wester, Wei, & Boysen, 2005.) Negative attitudes toward seeking mental health services has been found to be related to lower ratings of intention to seek these services (Deane & Todd, 1996; Leong & Zachar, 1999). Conversely, more positive attitudes have been found to significantly predict higher intention to seek mental health services (Johnson, 2001; Mackenzie, Gekoski, & Knox,
A review of responses to the National Comorbidity Survey (NCS; Jagdeo, Cox, Stein, & Sareen, 2009) indicated that Americans overall tend to have more negative attitudes toward seeking mental health services. Consistent with related literature, Jagdeo et al. (2009) found that men had reported even less positive attitudes than women. The researchers suggest that men’s tendency to underutilize mental health services may be due to holding more negative attitudes toward seeking these services. This proposed relationship between negative attitudes and lower intention to seek services does not explain the under-utilization of these services for Latino men (Pederson & Vogel, 2007; Sharpe & Heppner, 1991). A secondary analysis of the data from the national comorbidity survey replication (NCS-R) indicated that the Latino participants actually endorsed more positive attitudes toward seeking mental health services than their Caucasian peers (Shim, Compton, Rust, Druss, & Kaslow, 2009).

**Masculinity ideology.** Men’s gender specific role norms or “masculinity ideology” (Thompson & Pleck, 1986) have been described as cultural beliefs about gender roles (Levant, Wimer, Williams, Smalley, & Noronha, 2009). These beliefs are often expressed through norms and stereotypes that communicate the expectations of men’s behavior (Thompson & Pleck, 1986). A number of researchers have included measures of this construct in their investigations related to mental health help seeking intentions (Berger, Levant, McMillan, Kelleher, & Sellers, 2005; Levant et al., 2013). Goddard (2003) reported that when attitudes and subjective norms were examined together, they explained 63% of the variance in ratings of intention to seek counseling services.
Given the importance of culture in determining these beliefs (Addis & Mahalik, 2003), it is important to explore the masculinity ideology of Latino men. The conceptual understanding of Latino masculinity has expanded substantially in recent years. The term typically used to describe Latino masculinity is machismo, and is characterized by values such as sexism, chauvinism, and hyper-masculinity (Urrabazo, 1985). Although these values have been endorsed by men across ethnic groups, the term machismo has historically been attached to the masculine ideology of Latino men. Recent research suggests that a majority of Latino men today do not endorse these values (Ramos, 2015).

In contrast to the predominately negative connotations of machismo, the term caballerismo has been used to describe the positive values endorsed by many Latinos. This term reflects more prosocial attributes such as respect, dignity, honor, and treating others kindly (Arciniega, Anderson, Tovar-Blank, & Tracey, 2008; Berger et al., 2005). Unfortunately, these culturally relevant constructs are often not included in investigations regarding Latino’s intention to seek mental health services.

**Theoretical Model**

Many researchers have utilized Ajzen and Fishbein’s (1980) empirically supported model for understanding human behavior. The theory of reasoned action (TRA) proposed a theoretical model which suggests that the likelihood of a behavior occurring can be reliably predicted by the individual’s intention to perform that behavior (Ajzen & Fishbein, 1980). Additionally, the model proposed that an individual’s intention to perform a behavior is predominately influenced by two variables: (a) The individual’s attitude toward this behavior, and (b) The individual’s perception of relevant norms regarding the behavior (Ajzen & Fishbein, 1980). Mental health help-seeking researchers
have utilized a myriad of approaches to further understand the factors that influence men’s under-utilization of services

Consistent with the TRA model, the factors most often identified as predictors of intention to seek mental health services include: attitudes toward these services (Armitage & Conner, 2001; Miville & Constantine, 2006; Zavala, 2009) and the subjective norms associated with men’s gender role (Hammer, Vogel, & Heimerding-Edwards, 2013; Lane & Addis, 2005; Piña, 2012; Shepherd & Rickard, 2012)

Theory of Reasoned Action (TRA)
Applied to Latino’s Mental Health Help Seeking

Only a handful of studies have used the TRA model to predict intention to seek mental health services among a sample of Latino men with appropriate consideration for the culturally relevant factors (Cabassa, 2007; Kuo, Roldan-Bau, & Lowinger, 2015; Smith, Tran, & Thompson, 2008). Although each of these investigations contributed to the current understanding of Latinos help-seeking behavior, each did so within different conceptualizations of the subjective norms variable of the TRA model. To date there has been only one study to conceptualize this variable using the bi-directional Machismo-Measure (Arciniega et al., 2008) to help explain differences in Latinos intentions to seek counseling services (Torres, 2014). The differential findings reported by Torres (2014), may be due in part to variance contributed the prediction model by factors unaccounted for the study design. More specifically, differences in participant’s level of acculturation/enculturation as well as current psychological distress and previous counseling experience in the Torres (2014) sample may have contributed added variance to ratings of
intention to seek counseling services that was not accounted for with measures of these variables.

Statement of the Problem

Compounding the challenges of navigating traditional masculinity, Latinos also face ethnic challenges in utilizing mental health services when needed. Unfortunately little is known about many of these challenges as there is also limited research in this domain. Currently there is only one investigation that has attempted to evaluate a cultural expansion of the model of reasoned action as a framework for better understanding the relationship between attitudes toward seeking mental health services, Latino specific masculinity ideology Torres (2014) and the intention to seek these services among a population of Latino men. The limitations identified must be addressed in future research as it is quite possible that these factors added variance to the prediction model that were not accounted for in the analysis, limiting the confidence that can be placed in their interpretation. I intended to address these limitations in the current study. This study expanded on previous mental health help seeking literature in several ways. Psychological distress and previous counseling experience have been found to be related to an individual’s intention to seek counseling. Measures of these constructs were included as control variables in the current study in order to more clearly identify the unique variance in ratings of intentions to seek counseling that can be explained by the independent variables (i.e., machismo and attitudes towards these services). The current study also included a measure of acculturation and enculturation as this factor is uniquely related to Latinos mental health. In light of the language barriers that many Latinos face, and the many within group differences among Latinos of varying levels of acculturation
versus enculturation, this study was offered in Spanish as well as English. Another reason for the inclusion of a Spanish version was to increase the diversity of the sample to include individuals who only speak or prefer to speak in Spanish.

**Implications for Counseling Psychology**

The results of the current investigation have numerous implications for the field of Counseling Psychology as it works to more fully understand the unique needs of Latinos and better serve these individuals. This research could also assist the field as it works as an agent of social change by helping to identify the factors that positively influence Latinos' intentions to seek out these services when in need. As the field of Counseling Psychology works to provide culturally responsive and appropriate services, the unique needs of Latinos will continue to be of interest. The U.S. Latino population increased by 15.2 million from 2000 to 2010 and accounted for nearly half of the United States population growth from 2000 to 2010. The results of the current study could aid in the effort of counseling psychology to increase the number of Latinos that utilize these services by incorporating a greater understanding of the factors that positively influence their intention to do so. In addition, the results of the investigation may be incorporated in recruitment material in the effort to integrate the social and cultural factors that most influence these men’s help-seeking behavior.

**Purpose of the Study**

The purpose of the current study was to investigate differences in two cultural attitudes and their relationship to intention to seek mental health services among a population of Latino men. This study addressed several limitations of prior research. In addition to utilizing a robust measure of acculturation, the current study also accounted
for potential differences in current psychological distress, and previous counseling experience as these variables have consistently been found to be related to intention to seek mental health services. The current study attempted to respond to the following research question and corresponding hypotheses.

**Research Question 1**

Q1 Do traditional machismo and caballerismo account for a significant amount of variance in ratings of intention to seek counseling services after controlling for important demographic variables?

**Research Hypotheses**

H1a Attitudes will explain a significant ($p < .05$) amount of variance in intention to seek counseling ratings after accounting for control variables.

H1b Traditional machismo will explain a significant ($p < .05$) amount of variance in intention to seek counseling ratings after accounting for the variance explained by the control variables (acculturation rating, current psychological distress, previous counseling experience, and demographic information).

H1c Caballerismo will explain a significant ($p < .05$) amount of variance in intention to seek counseling ratings after accounting for control variables.

**Definition of Terms**

*Acculturation* was defined as the extent to which an individual identifies with his American culture.

*Attitudes toward seeking mental health services* was defined as an individual’s perceptions of seeking help for psychological concerns such as depression or anxiety.

*Caballerismo* was defined as the ideology that reflects the more positive values associated with machismo such as chivalry.
Enculturation was defined as the extent to which an individual identifies with his culture of origin (i.e., Mexico or Cuba).

Intention to Seek Mental Health Services was defined as the extent to which an individual would endorse the desire to pursue counseling services should they experience psychological distress.

Machismo was defined as a multi-dimensional construct encompassing both traditional machismo and caballerismo ideologies.

Masculinity Ideology was defined as set of gender specific beliefs, values and expectations that influence men’s perception of what is considered acceptable behavior.

Traditional Machismo was defined as the ideology that reflects the stereotypically negative values associated with machismo such as hyper masculinity.

Overall, Latinos tend to underutilize counseling services compared to Latinas as well as their peers from varying ethnic backgrounds (Alegria et al., 2002). Further complicating the struggle of these men are the many structural, cultural and gender related barriers these men face. It is critical that related research include in its design, a method for identifying within group differences by including a detailed demographics questionnaire as well as ratings of acculturation/enculturation. In addition to Latinos being underrepresented in literature, they may also be misrepresented when lumped into one homogenous group for between group comparisons. The next chapter, therefore, provides a more in-depth discussion of these variables.
CHAPTER II

REVIEW OF LITERATURE

This chapter provides an in-depth review of literature related to the current investigation of Latino men’s intention to seek mental health services. The chapter begins with a description of mental illness prevalence rates among the general population in the United States as well as those of Latinos specifically. Gender and ethnic differences in the utilization of mental health services are then be explored. A review of previous research on mental health service utilization is then presented along with an empirically supported model for explaining human behavior.

Prevalence of Mental Illness in the United States

The Center for Disease Control Health Disparities & Inequalities Report (CDCHDIR, 2013) defines mental health as “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community” (p. 28). Latinos’ mental health has been the focus of a number of national epidemiological studies, namely; The Hispanic Health and Nutrition Survey (HHANES; Moscicki, Rae, Regier, & Locke 1987), the Mexican-American Prevalence and Services Study (MAPPS; Vega et al., 1998), the National Latino and Asian-American Study [NLASS; Alegria et al., 2008] and the Medical Expenditures Panel Survey (MEPS; Berdahl & Torres Stone, 2009). The HHANES’ sample included over 10,000
Latinos/as, and provided support for within group differences on measures of depression (Moscicki et al., 1987). These findings were expanded upon by the MAPPS study which included measures of depression, panic disorder, and phobia while also accounting for level of acculturation with a sample of 3,000 Latinos/as (Vega et al., 1998). The NLAAS (Alegria et al., 2002) sample included over 2,500 Latino/a participants and included contemporary measures, sampling methods, and data analysis. The above-mentioned studies all detailed a trend of increasing prevalence of mental illness among the growing Latino population in the United States. According to the World Health Organization (WHO, 2004, 2010, 2016) Latinos/as’ rate of mental illness are roughly equal to that found with their non-Latino Caucasian peers.

America has one of the highest prevalence rates of mental illness of all developed countries at approximately 26% (WHO, 2004, 2010, 2016). The National Institute of Mental Health (NIMH, 2015) confirms these estimates reporting that roughly one in four adults meet criteria for a diagnosable mental illness in a given year. Despite over a decade of literature detailing the empirical support and cost effectiveness for psychological intervention, a vast number of individuals who meet criteria for a diagnosable mental illness do not utilize mental health services. According to the WHO (2016), untreated mental illness can detrimentally impact an individual’s social, occupational, and physical well-being. Untreated mental illness costs Americans billions of dollars a year in the form of lost employment, decreased productivity, and increased use of social services (Bayer, Hiscock, Morton-Allen, Ukoumunne, & Wake, 2007). While this provider-service gap exists across gender and ethnicity, the differences between groups vary significantly.
Barriers to Mental Health Utilization

In a meta-analysis conducted by Cabassa, Zayas, and Hansen (2006), 16 articles regarding Latinos’ utilization of mental health services were reviewed. In order to be included in their review Cabassa et al. (2006) determined the study must have: (a) included random samples of community dwelling Latino adults 18 years of age or older, (b) employed standardized diagnostic instruments, and (c) reported access findings, such as rates, frequencies, and/or types of services used, for mental health problems. In addition to confirming that Latinos across subgroups under-utilize services, results of Cabassa et al.’s (2006) analysis revealed several concerns regarding the methodological approach taken to investigate Latinos mental health utilization. While most of these investigations (15 of 17) employed a form of multivariate analysis, half (8 of 16) did not include a theoretical framework. This inconsistency in the use of theoretical framework not only limits the confidence that can be placed in results, it creates difficulties for future researchers wishing to build upon their findings. Perhaps more concerning is that despite the heterogeneity within the Latino population half (8 of 16) of the studies reviewed used between group differences among a single Latino group for analysis. This approach is not only concerning, several researchers argue that it may be unethical (Casas, 2005; Sanchez-Hucles & Jones, 2005; Santiago-Rivera, Arredondo, & Gallardo-Cooper, 2002).

Structural Related Barriers

Lack of insurance. Another important finding of Berdahl and Toress Stone’s (2009) investigation was that lack of insurance was the number one reported barrier to seeking mental health services when needed. This finding echoed similar results that have been reported for more than 30 years indicating lack of insurance and/or high cost to be
the number one barrier to mental health services (Alegria et al., 2008; Sanchez & Atkinson, 1983). Although justifiably concerning, this barrier to mental health services was intended to be addressed the following year with the introduction of the 2010 Affordable Care Act.

The United States has undergone monumental changes in its healthcare in recent years following the adoption of the Affordable Care Act (Protection & Act, 2010). A number of detailed initiatives have followed, outlining a prevention strategy for addressing Americans’ mental and emotional well-being (Koh, Graham, & Glied, 2011). The overarching goal of these and other initiatives is the elimination of health disparities which they define as “a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage” (Koh et al., 2011). In addition to increasing the national focus on addressing the mental health of all Americans, one of the provisions of the act required that most insurance plans cover access to mental health services (Koh et al., 2011). It was estimated by some sources that this provision would grant millions of Americans access to counseling services. Unfortunately, this healthcare change has not yet found its way toward many Americans including Latinos. In a study conducted two years after the introduction of the Affordable Care Act, Bridges et al. (2012) reported that 60% of their community-based Latino sample indicated lack of insurance and high cost to be the number one barrier to accessing mental health services.

Client and Culture Related Barriers

Age. Researchers have reported finding little to no differences between young men (18-25) and older men (60 and older) on a measure of attitudes toward seeking counseling services in a sample of 128 U.S. military veterans (Held & Owens, 2013).
Other researchers however have pointed out that college age men (18-25) access services at an even lower rate than their older peers (Eisenberg, Hunt, Speer, & Zivin, 2011).

**Gender differences in mental health utilization.** Among the most well documented findings in mental health utilization literature is the distinct gender difference in the rates of utilization. Men have consistently been found to be less likely than women to utilize mental health services (Cabassa, 2007; Good et al., 1989; Kessler et al., 1994; WHO, 2016). This trend has been documented for close to a half a century and exists across demographic variables of age (WHO, 2004, 2016) and ethnicity (Mahalik et al., 2003; Mansfield, Addis, & Mahalik, 2003; Sternart, 2015). Latinos (i.e., men) specifically are estimated to be half as likely as Latinas (women) to utilize mental health services when needed (Alegria et al., 2008; CDCHDIR, 2013; Sternart, 2015; WHO, 2016). These gender differences have been identified within the heterogeneous Latino population as well (Cabassa et al., 2006; Ojeda & Bergstresser, 2008; Sternart, 2015).

**Language barriers.** Language barriers are a particularly complicated for many Latinos. In contrast to the provider-service gap previously described, the language barrier is a result of the limited number of Spanish speaking providers. Even those Latinos who can speak English may prefer to discuss personal information in Spanish (Echeverry, 1997). Additionally, the political status of the US may deter undocumented Latinos/as for fear of “getting their papers” meaning deportation (Bauer, Rodriguez, Quiroga, & Flores-Ortiz, 2000; Cabassa et al., 2006). There has been far more research devoted to identifying client and attitude related barriers than structural barriers.
**Ethnic differences in mental health service utilization.** Berdahl and Torres Stone (2009) set out to identify potential differences among three Latino subgroup populations and their white non-Latino peers. They reviewed data from 30,000 participants collected by the Medical Expenditures Panel Surveys (MEPS) from 2002 and 2003. The groups identified for their study were the three largest Latino populations: Mexicans, Puerto Ricans, and Cubans. A nationally representative sample of 5,959 Mexicans, 623 Puerto Ricans, 340 Cubans, and 23,312 whites was used. The authors used the Self-Administered Questionnaire (SAQ) which provided data on non-institutionalized healthcare use, expenditures, and insurance coverage. These groups were compared amongst each other as well as their non-Latino white peers. Results of the investigation revealed that Mexicans in particular were distinctly different from the other ethnic groups in their use of mental health services. Mexicans reported the lowest use of any type of service for mental health concerns (4%) of all groups. This was almost half of what was seen in the Puerto Rican population (8%) which was not statistically significantly different from the non-Latino white population (9%).

**Nation of origin.** The approach of using between group differences among a single Latino group disregards a myriad of within group differences among Latinos. It is important to remember that many Latino subgroups come from backgrounds with very different sociopolitical histories cultural traditions, and indigenous values (Delgado-Romero, Galvin, Maschino, & Rowland, 2005). The members of these different subgroups have experienced distinct challenges and benefits that related to the area of their origin. An example of this distinction is present in the current sociopolitical context of Mexico compared to Puerto Rico. The distinction of Puerto Rico as an American
territory grants its citizens benefits not provided to those from who come from Mexico. In consideration of the many within group differences present among Latinos, it is critical that investigations with this population allow for subgroup differences to be identified in their methodological approach. Further differentiating members within subgroups are factors like level of acculturation, which has been shown to be independently related to Latinos mental health (Hovey, 2000).

**Level of acculturation.** The second methodological concern with the Torres (2014) study is the potential influence of culture on the findings reported. The premise of studying culturally relevant variables is the assumption that culture plays a part in the relationships among the variables of interest. In order to address this influence, it must first be identified and then accounted for to consider the model’s predictor variables to be independent of its influence. With respect to Latinos, level of acculturation has been shown to be associated with increased ratings of psychological distress and depression (Hovey, 2000). According to Cuellar et al. (1995), acculturation is a complex process involving different aspects of the lived experience. Level of acculturation has been found to be significantly related to Latinos’ mental health (Chu, Hsieh, & Tokars, 2011; Hovey, 2000). While language preference and number of years in the United States have been found to be associated with the intention to seek services, these variables do not account for Latino men’s lower use (Chu et al., 2011; Ramos, 2015). Consideration for acculturation to American cultures, as well as enculturation to Latino culture is necessary.

**Culturally specific variables.** In an effort to better understand their relationship with Latino’s help seeking behavior, researchers have identified a number of culturally relevant variables that may influence this behavior. Despite the many within group
differences, many Latinos endorse some shared cultural values. For example, many Latinos value *Familismo*, (Constantine, Wilton, & Caldwell, 2003) or prioritizing the need(s) of the family over oneself. This value may result in some Latinos ignoring their own physical and/or emotional concerns. Another perspective on the influence of familyism is that this value may help to explain why many Latinos prefer informal sources of support such as family or friends (Cabassa et al., 2006). Although Latinos endorse a preference for seeking support within their social network that does not mean they would not also seek support from other sources (Cabassa et al., 2006; Cheng, Kwam, & Sevig, 2013). Interestingly, Cabassa et al. (2006) found that slightly more than 1% of U.S. born Mexican Americans use informal support providers as their sole source for mental health support. This means a tendency to utilize informal sources of support does not rule out the potential that U.S. born Mexican Americans will also seek out formal sources of support, like counseling. Miville and Constantine (2006) reported that Mexican-American college students’ attitude toward seeking mental health services are moderated by perceived social and familial support. Their investigation suggested that in the absence of perceived familial support Mexicans’ attitudes towards help-seeking behaviors tend to be more positive. Similarly, they suggested that the absence of perceived social support also increased positive attitudes toward help-seeking behaviors.

The rationale put forth by the authors was that the absence of perceived social support increased the likelihood that these students would positively view other available sources of support.

**Psychological distress.** After more than three decades of related investigations, many researchers agree that a participant’s current level of psychological distress is a
critical variable to include in predicting an individual’s intention to seek psychological services (Cepeda-Benito & Short, 1998; Cramer, 1999; Leech, 2007; Zuvekas & Fleishman, 2008). Those who report lower psychological distress typically also endorse lower intention to seek mental health services (McGhee, 2011). Constantine et al. (2003) also provided support for this relationship among an ethnically diverse sample that included 256 Latino undergraduate students. Constantine et al. (2003) found psychological distress to be a statistically significant predictor of intention to seek counseling services for the Latino participants. Latinos may be at risk of experienced even more psychological distress as a result of the acculturative stress (Hovey, 2000).

**Previous counseling experience.** Similarly, there is also evidence suggesting that for some Latinos there is a relationship between previous counseling experience and intention to seek these services again in the future (Mendoza, Masuda, & Swartout., 2015). Fischer and Turner (1970) identified previous counseling experience to be related to more positive attitudes toward these services. Consistent with this finding, Fischer and Farina (1995) found previous counseling experience to be correlated with more positive attitudes toward these services. This variable has been identified and included in related investigations for a number of years and it is often measured with a single dichotomous (Yes/No) item assessing previous use of services (Ramos, 2015).

**Attitude Related Barriers**

**Attitudes toward seeking services.** Investigations regarding the utilization of mental health services gained traction in mental health literature with the work of Fischer and Turner (1970). The researchers sampled 960 university students including 468 males in the development of their measure (Attitudes Toward Seeking Professional
In addition to contributing the attitudes toward seeking professional psychological help scale (ATSPPHS), the authors shed light on several important phenomena that their study results revealed. Of note were the findings that current psychological distress and prior counseling experience were both positively correlated with men’s attitudes toward counseling services, and willingness to seek these services (Fischer & Tuner, 1970). A nationwide study conducted by Jagdeo et al. (2009) reviewed 5,877 responses to the National Comorbidity Survey (NCS) identifying attitudes towards seeking mental health services. Results of their analysis indicated that Americans tend to have negative attitudes toward seeking mental health services. The researchers suggested that these negative attitudes may impact the likelihood of Americans to seek out mental health services. Although this finding may initially appear to account for the tendency of Americans to not seek mental health services, several studies have found results that contradict this belief. In analysis of the National Comorbidity Survey-Replication (NCS-R; Shim et al., 2009) indicated that Latinos had more positive attitudes toward seeking mental health services than their Caucasian peers. This finding negates the hypothesis that negative attitudes toward seeking help alone can account for the discrepant use of mental health services by Latinos. This finding was also supported by a study of Mexican parents conducted in adult education class in a predominately Mexican geographic location. Again, results of this study indicated that Mexican participants reported positive attitudes towards seeking mental health services (Zavala, 2009). Other researchers have also suggested that Latino’s under-utilization of counseling services may not be due to negative attitudes toward these services. In a qualitative inquiry conducted by Cabassa (2007), focus groups of Mexican-American
men were organized and presented with a vignette depicting a man struggling with depression. In support of previously discussed findings, 93% of these men agreed that counseling would help the man in the vignette. In addition, the members of the group expressed more confidence in counseling than medication for addressing the man’s struggles. This result is somewhat counterintuitive given the under-utilization of these services by Latino men in particular. With more than 30 years of literature investigating these attitudes in relation to seeking mental health services, it is still unclear what relationship these variables hold for Latinos or members of their many subgroups (Cabassa, 2007; Vogel, Heimerdinger-Edwards, Hammer, & Hubbard, 2011).

Many researchers have also worked on expanding the understanding of the relationship between men’s attitudes and the utilization of mental health services by including gender specific variables in related investigations (Blazina & Watkins, 1996; Good et al., 1989; Vogel et al., 2011). Given that I am interested in gender specific variables, I further explore men’s gender specific norms in the following section.

**Masculinity ideology.** The exploration of gender specific expectations of men’s behavior, or male role norms has developed substantially in recent years. Current literature has adopted the term masculinity to more accurately reflect the wide-ranging belief systems or ideologies that help define acceptable behavior. (Levant et al., 2009). These ideologies are communicated to men both directly through communicated expectations and indirectly through internalization of cultural belief systems and attitudes toward masculinity and men’s roles (Levant et al., 2003). Due to the influence of individual perspective on belief systems it is likely that many different masculinity ideologies exist. While men may be exposed to a number of masculinity ideologies, it is
the dominant ideology that is communicated to all men. The dominant ideology is based on the collective ideologies held by members of the dominant culture. The current dominant masculinity ideology is referred to as traditional masculinity. This ideology is characterized by pre-1960 gender norms, many of which may not be conducive to the behavior of seeking mental health services. After conducting a meta-analysis of 124 gender specific investigations, Galdas, Cheater, and Marshall (2005) concluded that traditional masculinity plays a critical role in men’s decision to seek mental health services.

**Traditional masculinity.** Some of the more traditional masculine norms such as dominance, emotional control, violence, and extreme self-reliance can be antithetical to the expression of emotions; an integral part of utilizing mental health services (Levant et al., 2013; Mahalik et al., 2003). Some men may not possess the affective vocabulary necessary to articulate their painful emotional experiences (Levant & Fischer, 1998). The emphasis on independence and power seen in traditional role norms can result in a sense of dissonance for many men as their lived experiences do not match their perceived gender expectations. This dissonance has been conceptualized as strain in the gender role strain paradigm (Thompson & Pleck, 1986) and as conflict in the gender role conflict paradigm (O’Neil, 2008). Conformity to this more traditional masculinity has been associated with negative psychological consequences, such as general psychological distress, depression and anxiety (Blazina & Watkins, 1996; Good et al., 1989; Hayes & Mahalik, 2000.) A dissertation project by Piña (2012) found that traditional masculine ideology was statistically significantly related to the attitudes toward seeking psychological services of Mexican American men. Administering measures of gender
role conflict, identification with masculine ideology, and attitudes toward seeking psychological services Piña (2012) conducted a hierarchical regression to identify relationships among variables. Results of the investigation indicated that traditional masculine ideology alone was a statistically significant explanatory variable of attitudes toward these services. This finding suggests that endorsement of the dominant masculinity ideology may help explain the mental health care attitudes of Latino men. Increased ratings of endorsement of these more traditional male role norms have been found to be associated with higher depression ratings (Genuchi & Valdez, 2014), increased ratings of alexithymia (Addis & Mahalik, 2003), higher ratings of psychological distress (Levant et al., 2009), less positive attitudes toward seeking mental health services (Cabassa et al., 2006), and lower intention to seek mental health services (Torres et al., 2002).

Fragoso and Kashubeck (2000) provided evidence for a similar relationship between traditional masculinity ratings and depression ratings in a community-based sample of Mexican-American men. More specifically, the researchers found that the restrictive emotionality construct of the traditional masculine role norm was correlated with higher levels of depression for those men (Fragoso & Kashubeck, 2000). For Costa Rican men endorsement of the traditional masculine role norm of restrictive emotionality was negatively correlated with willingness to seek out help services (Lane & Addis, 2005). Given that culture plays a major role in the development and maintenance of masculinity ideologies (Addis & Mahalik, 2003) it is, therefore, necessary to explore the masculinity ideology of Latino men and its relationship with their attitudes and intentions toward seeking mental health services.
Latino masculinity. The accepted conceptual understanding of Latino masculinity has expanded substantially in recent years with the adoption of an acceptable terminology to classify the characteristics that many Latinos feel reflect their masculinity. The term historically used to describe Latino masculinity is machismo, and is characterized by values such as sexism, chauvinism, and hyper-masculinity (Urrabazo, 1985). Although the term has historically been attached to the masculinity ideology of Latinos, both quantitative and qualitative researchers have been reporting that this does not reflect a complete understanding of Latino men. A number of researchers in the last three decades have agreed with Urrabazo (1985) and reported a more prosocial view of Latino masculinity. Valdez (1987) echoed this incomplete conception reporting that the term chivalry described an aspect of Latino masculinity not included in the more negative machismo conception (Valdez, 1987). The qualitative work of Mirande (1988, 1997) and mixed methods work of Torres et al. (2002) have described this incomplete conception as well as provided evidence for the multidimensionality of Machismo. In contrast to the predominately negative connotations of machismo, the concept caballerismo has gained more attention in recent years. This term originates from the Spanish word caballero or cowboy and reflects the prosocial attributes of chivalry and honor (Arciniega et al., 2008) rather than gender role stereotypes. These more positive characteristics such as respect, dignity, honor, and treating others kindly are cores aspects to Latino masculinity (Arciniega et al., 2008; Berger et al., 2005). Beyond acknowledging the positive and negative aspects of machismo, Arciniega et al. (2008) demonstrated that the construct was comprised of two separate but related sub-constructs in the development of his bi-directional measure of Latinos traditional masculinity; The M-Measure.
Contemporary research regarding mental health utilization in many ways stems from the work of Fischer and Turner (1970). A number of notable researchers have expanded on Fischer and Turner’s work in the development of models for predicting the utilization of mental health services. Among these notable researchers is Cramer (1999), who developed a model for predicting help-seeking behavior. Cramer conducted a secondary data analysis using data from two independent investigations of antecedents of mental health service utilization (Cepeda-Benito & Short, 1998; Kelly & Achter, 1995). Cramer (1999) proposed a model that included a number of factors including self-concealment, self-stigma, as well as current psychological distress. This model has been utilized and expanded upon by a number of researchers as well. Vogel et al. (2005) for example attempted to compare Cramer’s predictive model with that developed by Ajzen and Fishbein (1980) nearly two decades earlier. An increasing number of researchers have chosen to apply the older, yet empirically supported model for predicting behavior; the theory of reasoned action (TRA; Ajzen & Fishbein, 1980).

**Previous Research Utilizing the Theory of Reasoned Action**

The TRA suggests that by using the variables of attitudes and subjective norms regarding a certain behavior, researchers can predict intention to perform that behavior. According to the TRA model, in addition to an individual’s attitude regarding the behavior, his or her perception of the subjective norms regarding the behavior are necessary to predict the intention to perform the behavior. The TRA model has been used to predict engagement in a range of behaviors including: Gambling (Levant et al., 2009); healthy eating (Galdas et al., 2005), drinking (Norman & Conner, 2006), and physical activity (Armitage, 2005). In recent years the TRA model has been applied to mental
health utilization. Vogel et al. (2005) found that rating social stigma and social norms predicted attitudes toward seeking mental health services. Vogel et al. (2005) found that attitudes mediated the relationships between these public stigma and intentions to seek mental health services. Only a handful of studies have used the TRA model to predict intention to seek mental health services among a sample of Latino men with appropriate consideration for the culturally relevant factors (Kuo et al., 2015; Smith et al., 2008). Consistent with the TRA model, the factors most often identified as explanations for men’s under-utilization of mental health services include their attitudes toward these services (Armitage & Conner, 2001) and the subjective norms associated with men’s gender role (Vogel et al., 2011). Therefore, the next sections presents research detailing the associations found in prior research between the attitudes, related subjective norms and the intention to seek mental health services.

Recently Smith et al. (2008) found that attitudes toward services mediated the relationship between endorsing traditional masculinity and intentions. The TRA model has also been used in the applied investigation of Latinos. Torres (2014) applied the TRA model to investigate the relationship between attitudes, social norm and intentions among a population of Latino men. Kuo et al. (2015) reported finding a statistically significant correlation between attitudes and perceptions of social norms as they relate to seeking mental health services. Interestingly, the authors found that cultural orientation (as measured by a bi-directional acculturation/enculturation instrument) and psychological distress predicted intentions to seek mental health services (Kuo et al., 2015). While all three of these studies used measures of participant attitudes and subjective norms to predict intention to seek mental health services, several concerns are raised by the choice
of instrument used to do so. While there was consistency in instrument choice for measuring the TRA variables of intentions and attitudes, all three investigations utilized a different measure of the subjective norms.

**Intention to Seek Counseling Services**

There does appear to be agreement among most researchers in the conceptualization of the intention factor (Cabassa 2007; Kuo et al., 2015; Smith et al., 2008; Torres, 2014). These investigations all utilized the Intention to Seek Counseling Inventory (ISCI; Cash, Begley, McCown, & Weise., 1975) as their dependent variable. Only a handful of studies have used the TRA model to predict intention to seek mental health services among a sample of Latino men with appropriate consideration for the culturally relevant factors. While all three of these studies (Kuo et al., 2015; Smith et al., 2008; Torres, 2014) used measures of participant attitudes and subjective norms to predict intention to seek mental health services, several concerns are raised by the choice of instrument used to do so. While there was consistency in instrument choice for measuring the TRA variables of intentions and attitudes, all three investigations utilized a different measure of the subjective norms.

After an extensive review of related literature, there is only one investigation that has applied Ajzen and Fishbein’s (1980) model of reasoned action as a framework for better understanding the relationship between attitudes toward seeking mental health services, subjective norms (i.e., machismo/caballerismo) and the intention to seek these services among a sample Latino men. Torres (2014) applied the Theory of Reasoned Action framework to predict intention to seek counseling services with a sample of 305 self-identified Latino undergraduate students in the southwest U.S. Participants were
administered measures of attitudes, The Attitudes Toward Seeking Professional Psychological Help-Short Form (ATSPPH-SF; Fischer & Turner, 1970), subjective norms, The Machismo measure (Arciniega et al., 2008), and intention to seek counseling services, the Intention to Seek Counseling Inventory (Cash et al., 1975). Results of the investigation yielded several important findings including: support for the predicted negative relationship between traditional machismo and attitudes toward seeking mental health services \( (r = -0.360, p < .01) \) as well as intention to seek counseling services \( (r = -0.201, p < .01; \text{ Torres, 2014}) \). Interestingly, caballerismo was not found to be significantly related to participant’s attitudes toward seeking professional psychological help \( (r = -0.110, p = .063, \text{ ns}) \), or their intention to seek counseling services \( (r = -0.053, p = .384, \text{ ns}; \text{ Torres, 2014}) \). In addition to contributing to the understanding of Latino men and their under-utilization of mental health services, Torres (2014) also provided insight into potential limitations that may be addressed by future research. It is possible that these findings may be in part to potentially confounding variables that were not accounted for in his design. More specifically, The Torres (2014) design omitted a measure of current psychological distress, previous counseling experience and level of acculturation and enculturation. As all three of these variables have independently been found to be related to men’s intention to seek counseling services, it is critical that they are included in related research. Including these variables in a study design allow the researcher to account for a known source of variance in the dependent variable and more clearly identify the amount of variance explained by the predictor variables independent of the variance accounted for by control variables.
While these investigations have all contributed to the understanding of these constructs, many have not applied the appropriate cultural considerations as suggested by Whaley and Davis (2007) and reiterated again by Kohn-Wood and Hooper (2014).

Making appropriate cultural considerations refers to adapting mental health services (i.e., intervention, assessment, and research) to incorporate relevant cultural factors in these activities (Kohn-Wood & Hooper, 2014).

Conceptually and methodologically, this brings us to the current study. The following chapter will discuss the methods for the current study including: the target sample characteristics, recruiting procedures and a discussion of the survey materials. This is followed by a review of the research questions and hypotheses as well as the statistical analyses to answer each.
CHAPTER III

METHODS

This chapter begins with a discussion of participants and recruiting procedures. The study procedures for both in-person as well as online survey administration are then explained. This is followed by a description of study questionnaires. The research question and hypotheses are then reviewed along with the statistical analyses to address each.

Participants

The target population for the current study were adults ages 18 and older who identify as being male, Latino, or as having a Latin ethnic background. Additionally, participants must have been able to read and understand either English or Spanish on at least a 6th grade level. Due to the exploratory nature of the current study, no additional inclusion criteria were required. The final data set consisted of 142 participants with slightly more surveys completed in English ($n = 75$) than in Spanish ($n = 65$).

Recruitment

In an effort to increase sample diversity and participation, the multipronged approach suggested by other authors will be used (Kuo et al., 2015; Torres, 2014). The strategies utilized for the current study were the online platform M-Turk and a “snowball” sampling procedure. The M-Turk platform allows users to specify inclusion criteria requested and then forwards the survey to all users meeting inclusion criteria. The
“snowball” sampling technique is a method of soliciting potential participants to share the study with others they know whom they believe meet inclusion criteria. Participants were encouraged to share the study information with their friends and family. An incentive for participation will be offered which is discussed further in the procedures section.

A power analysis was conducted via G*Power 3.1 (Faul, Erdfelder, Lang, & Buchner, 2007) to determine an adequate sample size for the statistical analysis in the current study. Several parameters were set for this power analysis. To conduct the intended regression analysis using three independent variables and one dependent variable with an intended power of .80 and an alpha error probability of .05, a sample size of 108 participants was needed to detect an effect size of \( f = .15 \) or greater (G*Power 3.1). Given the use of M-Turk as well as a snowball sampling approach it was not possible to record the response rate for the current study.

**Procedures**

Approval to conduct research was obtained from the University of Northern Colorado's (UNC) Institutional Review Board (IRB; see Appendix A). Following this, the survey was constructed using the Qualtrics platform and distributed through M-Turk. In an effort to encourage the participation of individuals who prefer or predominately speak Spanish, participants were able to choose to complete all parts of the study in Spanish or English.

**Administration Procedures**

Those choosing to participate were able to do so by accessing the link to survey materials from any computer or smart phone. This link navigated participants to the web-based survey materials hosted by Qualtrics software. Upon arriving at survey materials,
these study participants were presented with a page that has two icons requesting the reader to choose whether they would like to read in English or Spanish. Participants were able to select their preference by clicking on the corresponding icon. The remainder of study materials were presented in the chosen language. Following their selection, the reader was then navigated to a digital copy of the informed consent document (see Appendix B). In the informed consent, participants were notified of the purpose of the study, as well as provided with example survey questions, and a more in-depth explanation of the voluntariness of their participation. My contact information as well as the contact information for the University of Northern Colorado IRB was also listed in this document. It was made clear that although we would like for participants to complete all of survey materials, participants were not required to complete a specific amount of the survey to be entered in the gift card drawing. At the end of this document, readers were asked to indicate whether or not they would like to participate by clicking on either the “Yes” or “No” icon located at the bottom of the page. Those who chose to participate by clicking “Yes” were then presented with survey materials.

Survey sections were presented in the following order: the ISCI, followed by the ARSMA-II, the DASS-21, the M-Measure, the IASMHS, and finishing with the demographics questionnaire. In order to ensure the anonymity of participants, upon either completion of the survey or discontinuation of participation, participants were navigated to a closing page thanking them for their time. Those who choose the “No” icon after reading the informed consent were navigated to the same closing page as those who chose to participate. As a function of Qualtrics, once navigated to this closing page survey responses were transmitted to a password protected server via file transfer
protocol (FTP). Only myself, and my dissertation chair had this password. This closing page also gave participants and those who decline participation the option to be entered into the gift card drawing. Participants were asked to indicate their choice by clicking on either a “yes” or “no” icon. Those who chose to be entered into the drawing were navigated to a separate, single item survey that allowed participants to leave their desired contact information. Using a separate survey to conduct the drawing ensured that this information was not be connected to any survey responses. In addition, to ensure that survey responses were not linked to any contact information including Internet-based forms of identification (i.e., email address), Qualtrics did not save Internet IP addresses of participants.

**Measures**

The survey was comprised of 112 items from included measures of attitudes and intentions toward seeking counseling services, as well as measures of Latino masculinity, acculturation and enculturation. Lastly, survey items also included a measure of current psychological distress. In an effort to address potential language barriers as well as increase the diversity of the sample, two equivalent versions of the survey (English and Spanish) were made available to participants. The following sections describe the nature of the instruments included in the survey and scoring as well as validity and reliability information for each of the measures that were used in the current study. All but one of these measures have existing Spanish translations; therefore, the description of each measure will also include validity and reliability information for the translated measure based on previous samples, or the translation method utilized in the case of the measure
without a translated instrument. The description of each measure will conclude with the operational definition for the proposed study.

The Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS)

The IASMHS (Mackenzie, Knox, Gekoski, & Macaulay, 2004) is a 24-item instrument designed to provide a measure of attitudes toward seeking mental health services for individuals of all ages (see Appendix C). The IASMHS asks participants to respond to eight items from three domains (psychological openness, help-seeking propensity, and indifference to stigma) indicating whether they disagree (0), somewhat disagree (1), are undecided (2), somewhat agree (3), or agree (4) with each statement. Items 1,3,4,7,9,11,12,14,17,18,20,21 and 24 are reverse coded due to the nature of their wording. This measure typically takes less than ten minutes to complete. Scores for each subscale (0-32) are added together to provide an overall measure of attitudes toward seeking counseling services (0-96). An example of an item from the psychological openness subscale is “It is probably best not to know everything about oneself.” An example of an item from the help-seeking propensity subscale is “I would want to get professional help if I were worried or upset for a long period of time” and an example of an item from the indifference to stigma subscale is “I would feel uneasy going to a professional because of what some people would think.”

Mackenzie et al. (2004) used several objective measures of model fit in conducting their confirmatory factor analysis of responses to the IASMHS, in addition to a subjective review of the relevant scree plots. Using responses from two independent samples, the authors utilized root-mean-square error of approximation (RMSEA) as well
as the standardized root-mean-square residual (SRMR) to assess model fit of the three
factor structure of the IASMHS. Using the fit indices suggested by Hu and Bentler
(1999), Mackenzie et al. (2004) reported an excellent model fit with their first sample of
209 men and women sampled in the community (RMSEA = .039, 90% CI [.025, .050].
Similar results were also reported with their second sample of 297 university students:
RMSEA = .040, 90% CI [.030, .048]). In addition, Mackenzie et al. (2004) reported the
SRMR (.057) to also support the three-factor structure of the IASMHS. Scores on the
IASMHS also showed strong test re-test reliability ($r = .86, p < .01$) with a subset ($n = 19$) of the university student sample after a period of three weeks.

Mackenzie et al. (2004) assessed convergent validity using responses from their
community sample ($N = 209$) on two specific survey items regarding prior use of mental
health services and future intention to use these services. The authors reported finding
that overall IASMHS scores were correlated with past use of mental health services ($r = .33, p < .01$) as well as intention to use these services in the future ($r = .38, p < .01$).

Mackenzie et al. (2004) reported high internal consistency reliability estimates on
scores for their initial sample of 297 university students. They found acceptable internal
consistency reliability for the overall attitude scores ($\alpha = .87$) and moderate internal
consistency reliability for the Psychological Openness ($\alpha = .82$), the Help-seeking
Propensity ($\alpha = .79$) and the Indifference to Stigma subscales ($\alpha = .76$). Similarly, high
estimates were found for IASMHS scores with a sample of 331 Irish police officers ($\alpha = .82$) with an average age of 28.2 years old (Hyland et al., 2015). These findings overall
suggest that the IASMHS may provide a reliable measure of an individual’s attitudes
toward seeking counseling.
**Spanish translation.** The IASMHS was translated into Spanish with the help of two bi-lingual colleagues using the forward-back method. The original IASMHS was first translated into Spanish by the first colleague and translated back to English by the second colleague. This final translated version was then compared to the original IASMHS and found to be identical. Internal consistency reliability estimates using Cronbach’s alpha were expected to be greater than or equal to .70 (Heppner, Wampold, & Kivlighan, 2008). In addition to recording reliability estimates and an analysis of variance, an exploratory factor analysis was conducted on responses from both the English as well as Spanish versions in order to support the validity of the factor structure of each instrument.

**Operational definition.** For the current study I defined attitudes toward seeking mental health services as measured by the total score of the IASMHS (0-96), with higher scores reflecting more positive attitudes toward seeking counseling services. Given the internal consistency for the total score as well as the high correlation between subscale scores and the total score I used the total score for this purpose.

**The Machismo Measure (M-Measure)**

The M-measure (Arciniega et al., 2008) is a 20-item instrument assessing the endorsement of values related to Latino men’s masculinity. The measure consists of two 10-item subscales, one addressing traditional machismo (TM) values and the other addressing caballerismo (CA) values (see Appendix D). Respondents are asked to rate their agreement with each item on a Likert-type scale from 1 (strongly disagree) to 7 (strongly agree). This instrument typically takes less than 10 minutes to complete. The mean score from each subscale is used to provide an independent measure of traditional
machismo values (1-7) and of caballerismo values (1-7). Higher scores on each subscale reflect stronger agreement with the associated values. The TM subscale assesses endorsement of values commonly associated with traditional machismo such as: hyper-masculinity and adherence to rigid sex role stereotypes. An example of an item from the TM subscale is; “Real men never let their guard down.” The CA subscale assesses endorsement of values commonly associated with caballerismo such as: familial and social responsibility. An example of an item from the caballerismo scale is; “Men must display good manners in public” (Arciniega et al., 2008).

Arciniega et al. (2008) evaluated the factor structure and reliability of scores associated with the M-Measure using responses from their initial non-clinical sample of adult men (N = 403). In review of the principal axis analysis as well as the corresponding scree plot Arciniega et al. reported the RMSEA (.052) indicated good model fit using the indices suggested by Hu and Bentler (1999). This finding supported the hypothesized two-factor structure of the M-Measure.

Construct validity for each subscale was evaluated using a convergent validity method with ratings of an expert panel. The panel consisted of four Mexican-American men considered to have expertise regarding Latino culture, masculinity, as well as the concepts of machismo and caballerismo. These men were presented with each survey item and asked to rate the extent to which the statement represented either traditional machismo (TM) or caballerismo (C). Expert ratings showed high correlations for items from the TM subscale (r = .83, p < .01) as well as the C subscale (r = .79, p < .01; Arciniega et al., 2008).
Divergent validity of the M-Measure subscales were evaluated using independent measures of factors predicted to be associated with traditional machismo including; Alcohol consumption, number of fights, number of arrests, and ratings of alexithymia. Endorsement of items from the TM subscale were found to be associated with increased alcohol consumption, more fights, and more arrests (Arciniega et al., 2008). In addition, items from the TM subscale were also found to be related to increased severity ratings of alexithymia ($r = .52 \ p < .01$; Arciniega et al., 2008). Items from the C subscale of the M-Measure however were not found to be related to alcohol use, fights, or arrests (Arciniega et al., 2008). Items from the C subscale, however, were associated with stronger ethnic identity ($r = .29, \ p < .01$) and the greater use of problem-solving strategies ($r = .31, \ p < .01$; Arciniega et al., 2008).

Glass and Owen (2010) reported similar reliability estimates for scores on the TM subscale ($\alpha = .89$) as well as for scores on the C subscale ($\alpha = .80$) with their sample of 70 Latino fathers with an average age of 41 years old. Torres (2014) reported similarly high reliability estimates for scores on the TM subscale ($\alpha = .83$) and the C subscale ($\alpha = .80$) of the M-Measure with his sample of 350 self-identified as Latino undergraduate students. Validity and reliability related findings overall suggest that the M-Measure may useful at measuring the endorsement of values associated with traditional machismo as well as caballerismo with a sample of adult Latinos (Arciniega et al., 2008; Torres, 2014).

**Operational definition.** I evaluated endorsement of traditional machismo values as measured by the mean score of items from the TM subscale of the M-Measure (10-70) with higher scores reflecting greater endorsement of values associated with traditional machismo. The current study also evaluated endorsement of caballerismo values as
measured by the mean score from the C subscale of the M-Measure (10-70). Again, higher scores reflected greater endorsement of values associated with caballerismo.

**The Intention to Seek Counseling Inventory (ISCI)**

The ISCI (Cash et al., 1975) is a 17-item inventory which provides a measure of an individual’s intention to seek counseling services. The inventory is comprised of items addressing three types of concerns for which individuals typically seek counseling services: (a) psychological and interpersonal concerns; (b) academic concerns; and (c) drug problems (see Appendix E). Respondents are asked to rate how likely they are to seek counseling for each concern on a Likert-type scale ranging from 1 (Very unlikely) to 6 (Very likely). Scores are then added together to provide an overall measure of intention to seek counseling (17-112) with higher scores reflecting a greater intention to seek services.

Construct related validity was first evaluated by Cash et al. (1975) in a study of the factor structure of items comprising the ISCI using principal-axis factor analysis of responses from 211 university students. Using a minimum eigenvalue of 1.0 criterion, Cash et al. reported finding support for a three-factor structure with items loading on each factor at .50 or higher. The authors reported the three factor model showed the strongest fit to the data, accounting for 59% of variance in scores. While samples of students may be different, the types of problems they seek help for (i.e., interpersonal, academic, and drug) are still very prominent today. In more contemporary research, Cepeda-Benito and Short (1998) reported finding the same three factor structure of the ISCI with their sample of 732 university students. While this measure is dated, it has contemporary
research data, has already been translated into Spanish and has data with Spanish speaking samples.

Nearly four decades after it was developed, Kuo et al. (2015) reported the (RMSEA of .060, 90% CI, [.040, .080]) for the same three-factor structure of the ISCI to have the strongest model fit with their sample of 233 Latino immigrants. Since its inception the convergent and divergent validity of responses to the ISCI have been evaluated using independent instruments which measure constructs predicted to be associated with mental health help seeking. Among the most prominent findings are statistically significant correlations with measures of attitudes toward seeking mental health services (Cash et al., 1975; Cepeda-Benito & Short, 1998; Fischer & Turner, 1970; Kelly & Achter, 1995; Torres, 2014).

Torres (2014) found the total score of the ISCI to be correlated with scores from the Attitudes toward Seeking Professional Psychological Help Scale short form (ATSPPHS-SF; \( r = .27, p < .01 \)) with their sample of Latino university students. Kuo et al. (2015) also reported a strong correlation between scores from the ISCI and scores from the ATSPPHS-SF with their sample of Latino immigrants in Canada (\( r = .24, p < .01 \)). Scores on the ISCI have been found to be negatively related to endorsement of traditional machismo values (\( r = -.20, p < .01 \); Torres, 2014). This finding suggests that as endorsement of traditional machismo increases, respondents’ intention to seek mental health services decreases. Divergent-related validity was also supported by Cepeda-Benito and Short (1998) who reported a statistically significant, negative relationship between perceived social support and scores on the ISCI (\( r = -.11, p < .01 \)). This finding
suggested that, as perceived social support decreases, intentions to seek support from mental health services increases.

In addition to providing validity related support, Cepeda-Benito and Short, (1998) also reported high internal consistency reliability estimates for scores in the psychological and interpersonal concerns domain ($\alpha = .88$), the Academic Concerns domain ($\alpha = .69$), and the Drug Problems domain ($\alpha = .84$). The total score of the ISCI has also consistently been found to yield a high internal consistency reliability estimate ranging from $\alpha = .84 - .95$ (Cepeda-Benito & Short, 1998; Kelly & Achter, 1995; Vogel & Wester, 2003). More recent studies using scores on the ISCI as their dependent variable have also reported high internal consistency reliability estimates for total scores ranging from $\alpha = .93 - .95$ (Kuo et al., 2015; Torres, 2014).

Spanish translation of the ISCI. A Spanish translation of the ISCI was completed by Kuo et al. (2015) with the help of a bi-lingual member of the research team using the forward-back method. Kuo et al. (2015) reported high reliability estimates for total scores obtained from their Spanish translation ($\alpha = .94$).

Operational definition. In consideration of the high subscale correlations and the total score consistently reported as having the strongest internal consistency reliability estimates, I evaluated intention to seek counseling services as measured by the total score of the ISCI (17- 112) with higher scores reflecting a greater intention to seek out these services.
Acculturation Rating Scale for Mexican-Americans-II (ARSMA-II)

The ARSMA-II (Cuellar et al., 1995) consists of two subscales addressing language preference, ethnic identity, and ethnic interaction. The first subscale (Mexican Orientation Scale-MOS) consists of 17 items and provides a measure of enculturation, or orientation toward Mexican culture. The second subscale (American Orientation Scale-AOS) consists of 13 items and provides a measure of acculturation, or orientation toward American culture (see Appendix F). Respondents are asked to rate the frequency of their agreement with each item using a Likert-type scale from 1 (Never) to 5 (Most or all of the time). An example of an item from the MOS is: “I enjoy Spanish language TV.” An example of an item from the AOS is: “I enjoy listening to English language music.”

The scoring procedure recommended by Cuellar et al. (1995) requires that the mean score for items from the MOS subscale (1-5) be subtracted from the mean of items from the AOS subscale (1-5) to provide a linear rating of overall acculturation (-4 to 4). Cuellar et al. (1995) suggested that this continuous score then be placed into one of four categories; Traditional, Low bi-cultural, High bi-cultural, or Assimilated using cutoff scores provided by the authors. A meta-analysis of 142 studies utilizing the ARSMA-II between the development of the instrument in 1995 and 2013 showed that 80 of these studies (56%) utilized the same scoring procedures suggested by Cuellar et al. (1995) resulting in a unidimensional and categorical level of acculturation. Despite these recommended procedures a number of researchers have chosen an alternative scoring procedure in an effort to more accurately represent the bi-dimensional nature of the current conceptualization of acculturation (Jones & Mortimer, 2014). In their review,
Jones and Mortimer (2014) explained how participants with substantially different responses on both the MOS and the AOS could potentially be placed in the same acculturation category because of the grouping of outliers at both ends of the cut-off scores used. Jones and Mortimer (2014) recommended that future research retain the MOS score as well as the AOS score in analyses rather than combining the scores. This recommendation was followed in the proposed study. Therefore, the MOS scale scores had a possible range from 17-85 with higher scores reflecting greater orientation toward Mexican culture. Likewise the AOS scale scores had a possible range from 13-65 with higher scores suggesting greater orientation toward American culture.

Cuellar et al. (1995) assessed the validity and reliability of scores from the ARSMA-II using a sample of 379 Latino/a participants representing five generational levels of acculturation. Individuals included in the level one group were those who were born in Mexico, whereas second generation through fifth were comprised of individuals born in the U.S. and differentiated by the birthplace of their parents and grandparents (i.e., fifth generation indicated that parents and grandparents were born in the U.S.). Cuellar et al. (1995) reported a statistically significant correlation between ARSMA-II scores and generational level of acculturation \( (r = .61, p < .001) \). Scores from the ARSMA-II were found to be internally consistent with a sample of 1,547 adults for the MOS scale \( (\alpha = .82) \) as well as the AOS scale \( (\alpha = .88; \text{Cuellar et al., 1995}) \). Similarly, high internal consistency reliability estimates for MOS scale scores \( (\alpha = .86) \) as well as the AOS scale scores \( (\alpha = .80) \) were reported by Kuo et al. (2015) with their non-clinical sample of 223 Latino adults using the English version of the ARSMA-II.
Spanish version. The full 42-item ARSMA (Cuellar et al., 1995) included a Spanish translation of all items. The ARSMA-II (Cuellar et al., 1995) consists entirely of items from the original ARSMA and, therefore, also has Spanish translations for all items. The Spanish version of the ARSMA-II has been found to have high internal consistency reliability estimates with a sample of 379 individuals representing five generational levels for scores from the MOS subscale ($\alpha = .88$) as well as for scores from the AOS subscale ($\alpha = .83$; Cuellar et al., 1995). Kuo et al. (2015) also reported high reliability estimates for scores from the MOS subscale ($\alpha = .85$) as well as for scores from the AOS subscale ($\alpha = .82$) with their sample of 155 adults.

Operational definition. I followed the scoring procedures recommended by Jones and Mortimer (2014). Acculturation was defined as the mean score of items from the AOS (13-65). Enculturation was defined as the mean score of items from the MOS (17-85). The ARSMA-II typically takes less than 10 minutes to complete.

Depression, Anxiety and Stress Scale-21 (DASS-21)

The DASS-21 (Henry & Crawford, 2005) is an abbreviated version (21 items) of the full Depression Anxiety and Stress Scale (Lovibond & Lovibond, 1995). The DASS-21 (Henry & Crawford, 2005) retained seven items from each of the three subscales (depression, anxiety, and stress) of its predecessor providing a unidimensional estimate of respondents’ current psychological distress. Items consist of statements describing common symptoms of depression, anxiety, and stress (see Appendix G). Respondents are asked to indicate how often each statement applied to them in the last week from 0 (Did not apply to me at all) to 3 (Applied to me very much, or most of the time). Scores for the seven items within each subscale are then multiplied by two providing a rating of
depression (0-42), Anxiety (0-42), and Stress (0-42) with higher scores reflecting endorsement of greater distress of that type. The aggregate of these scores is used as a rating of overall psychological distress. This measure typically takes less than 10 minutes to complete. A sample question from the Depression subscale is: “I found it difficult to work up the initiative to do things.” A sample question from the Anxiety subscale is; “I felt I was close to panic.” A sample question from the Stress subscale is; “I felt that I was rather touchy.”

Henry and Crawford (2005) reported strong psychometric properties for scores from the shortened DASS-21 with a non-clinical sample of 1,754 adults living in the United Kingdom. They assessed the factor structure of the DASS-21 using the indices suggested by Hu and Bentler (1999). Henry and Crawford (2005) reported the optimal model to be a four-factor structure with correlated error having an RMSEA of .050, indicating a very good fit. While all 21 items loaded on this fourth factor, 20 of the 21 items loaded higher on this fourth factor than the one representing their parent subscale (Henry & Crawford, 2005). Consisting of all 21 items, this fourth factor constitutes the scores of all items, and is referred to herein as the total score.

Construct validity of scores from the DASS-21 was assessed using a subsample (n = 714) of the 1,754 adults who had also completed the Positive and Negative Affect Scale (PANAS). Henry and Crawford (2005) reported finding the DASS-21 total score to be correlated with scores from the positive affect subscale of the PANAS (r = -.40, p < .01) as well as scores from the negative affect subscale of the PANAS (r = .69, p < .01) in the expected directions. In addition, the authors evaluated convergent validity using two independent measures of depression and anxiety. Henry and Crawford reported finding
DASS-21 total scores to be related to responses on the Hospital Anxiety and Depression Scale (Zigmond & Snaith, 1983), and the Personal Disturbance Scale (Bedford & Foulds, 1978). Similar to other researchers Henry and Crawford reported high internal consistency reliability for responses to items on the Depression subscale (α = .88), the Anxiety subscale (α = .82), the Stress subscale (α = .90), with highest being the total scores (α = .93). Scores on the English DASS-21 have also been found to have high internal consistency reliability estimates with a sample of 80 Latino university students, reporting high Cronbach’s alpha estimates for scores on the depression subscale (α = .83), the anxiety subscale (α = .79) and the stress subscale (α = .84; Norton, 2007).

**Spanish translation.** Bados, Solanas, and Andrés (2005) translated all 42 items of the DASS-21 into Spanish with the help of a Spanish psychologist and four English speaking psychologists. Bados et al. (2005) reported the translation of all but one item to be identical (17) or having only minor differences (3) to the translation completed by Daza, Novy, Stanley, and Averill (2002). Bados et al. reported their translation of Item 8 regarding the use of nervous energy to better reflect the symptom intensity of the item in the original DASS-21 (Lovibond & Lovibond, 1995).

Bados et al. (2005) administered the full Spanish version of the DASS-21 to 365 Spanish university students and extracted responses to items comprising the DASS-21 for analysis to evaluate the fit of the hypothesized three-factor structure for the translated items. The authors reported an RMSEA of .061, (90% CI, [.04, .08]), indicating adequate fit of the proposed factor structure using the indices suggested by Hu and Bentler (1999), with RMSEA > .08 suggesting poor model fit. Bados et al. evaluated construct validity of scores from the Spanish DASS-21 using Spanish translations of independent measures of
depression, anxiety, and stress including; Beck’s Depression Inventory (BDI-S; Sanz & Vazquez., 1998), Beck’s Anxiety Inventory (BAI-S; Sanz & Navarro., 2003), and the Positive and Negative Affect Schedule (PANAS-S; Sandin et al., 1999). Bados et al. found high correlations between responses to the depression subscale of the Spanish DASS-21 and responses to the BDI-S ($r = .77, p < .01$), as well as between scores on the anxiety subscale of the Spanish DASS-21 and scores from the BAI-S ($r = .73, p < .01$). Divergent validity of scores from the Spanish DASS-21 was supported with the predicted negative correlation between scores from the Spanish DASS-21 and scores from the positive affect subscale of the PANAS-S ($r = -.55, p < .01$; Bados et al., 2005).

Bados et al. (2005) also reported adequate internal consistency reliability using Cronbach’s alpha estimates for items from the depression subscale ($\alpha = .84$), the anxiety subscale ($\alpha = .70$), the stress subscale ($\alpha = .82$), and total scores ($\alpha = .90$). Daza et al. (2002) found similarly high reliability estimates for scores from the depression subscale ($\alpha = .88$), the anxiety subscale ($\alpha = .82$), the stress subscale ($\alpha = .70$), and total scores ($\alpha = .90$). Although Daza et al. (2002) reported stronger reliability estimates than Bados et al. (2005), this may be due in part to the clinical nature of their sample (current anxiety disorder diagnosis). While some support exists regarding the factor structure, validity, and reliability of scores from Spanish translations of the DASS-21, further research is needed to evaluate psychometric properties of scores from the translated instrument along with a Latino American sample.

**Operational definition for the proposed study.** The Spanish DASS-21 translation completed by Bados et al. (2005) was used for the Spanish version of the survey in the proposed study. In the proposed study I evaluated current psychological
distress as measured by the total score of the DASS-21 (0-126) with higher scores indicating greater endorsement of psychological distress.

**Demographics Questionnaire**

Participants were asked to complete a demographics questionnaire indicating their age, ethnicity, country of origin, and whether they have had any previous counseling experience (see Appendix H). A Spanish translation of the demographics questionnaire was produced using the same procedure used to translate the IASMHS (described above).

**Data Analysis**

To begin the statistical analysis several preliminary analyses took place. The means and standard deviations of participants’ responses to each of the measures were calculated along with their corresponding reliability estimates. In addition, a factor analysis of participant responses to each of the measures (English and Spanish versions) were conducted.

Several statistical assumptions were met prior to conducting the primary analyses using multiple regression. Assumptions for multiple regression are: the normal distribution of the residuals, homoscedasticity, reliability, and linearity (Osborne & Waters, 2002). Although multiple regression is considered to be fairly robust to violations of assumptions, several preliminary analyses were conducted confirming that relevant assumptions had been met.

To confirm that the residuals follow a normal distribution the Komolgorov-Smirnov, an inferential test were conducted. To confirm that this assumption has been met I expected to see measures of skewness and kurtosis to be between -1.0 and 1.0. Additionally, to confirm this assumption, the data points should appear to be randomly
scattered rather than densely grouped or showing any type of pattern. Cronbach’s alpha internal consistency reliability estimates will also be evaluated for scores on the English and Spanish versions of each measure. Cronbach’s alpha estimates for all measures should be found to be greater than or equal to .70 (Heppner et al., 2008). In addition, Cronbach’s alpha estimates for scores derived from the paper version as well as the online version of the survey will be evaluated. Cronbach’s alpha estimates for all measures should again be found to be greater than or equal to .70 (Heppner et al., 2008).

Conducting a regression analysis also requires that a linear relationship exists between independent and dependent variables. In order to confirm that this assumption had been met I examined the same residuals scatterplot as described above for assessing homoscedasticity. As with the homoscedasticity assumption, a random scatter of points will suggest that the linearity assumption has been satisfied. In addition, the independent variables should be found to be relatively independent from each other to avoid multicollinearity concerns. The correlation matrix should reveal non-significant and trivial relationships between independent variables. After the necessary statistical assumptions had been met, the main analysis was conducted to address the following research question and hypotheses.

**Research Question 1**

Q1 Do traditional machismo and caballerismo account for a significant amount of variance in ratings of intention to seek counseling services after controlling for important demographic variables?

**Research Hypotheses**

H1a Attitudes will explain a significant (p < .05) amount of variance in intention to seek counseling ratings after accounting for control variables.
H1b  Traditional machismo will explain a significant (p < .05) amount of variance in intention to seek counseling ratings after accounting for the variance explained by the control variables (acculturation rating, current psychological distress, previous counseling experience, and demographic information).

H1c  Caballerismo will explain a significant (p < .05) amount of variance in intention to seek counseling ratings after accounting for control variables.

In order to address the three research hypotheses a hierarchical multiple linear regression analysis was conducted. It was expected that statistically significant (p < .05) regression coefficients will be found for each independent variable (traditional machismo, caballerismo, and attitudes) on the dependent variable (intention to seek counseling).

**Interpretation of Results**

To confirm these hypotheses, I interpreted standardized coefficients (β), F values, and their significance level, based on an (adjusted) alpha of p < .05. I interpreted the regression coefficients between the control variables and the total score of the ISCI based on an (adjusted) alpha of p < .05. The regression coefficients resulting from the second step of the regression were then evaluated to respond to each research hypothesis individually. More specifically, in order to confirm hypothesis (H1a) I interpreted the regression coefficients between the total score on the IASMHS and the total score of the ISCI to determine whether or not attitudes toward seeking mental health services explained a significant amount of variance in ratings of intention to seek counseling services based on an (adjusted) alpha of p < .05. I also examined the directionality of the coefficient to determine if the relationship between attitudes and intention to seek counseling was in the positive direction as found in previous research (Kuo et al., 2015; Torres, 2014).
In order to confirm hypothesis (H1b) I interpreted the regression coefficients between scores on the TM subscale of the M-Measure and the total score of the ISCI to determine whether or not traditional machismo explained a significant amount of variance in ratings of intention to seek counseling services based on an (adjusted) alpha of $p < .05$. I also examined the directionality of the coefficient to determine if the relationship between traditional machismo and intention to seek counseling was in the negative direction as found in previous research (Kuo et al., 2015; Torres, 2014).

In order to confirm hypothesis (H1c) I interpreted the regression coefficients between scores on the C subscale of the M-Measure and the total score of the ISCI to determine whether or not caballerismo explained a significant amount of variance in ratings of intention to seek counseling services based on an (adjusted) alpha of $p < .05$. I also examined the directionality of the coefficient to determine if the relationship between caballerismo and intention to seek counseling was in the positive direction as found in previous research (Kuo et al., 2015; Torres, 2014).
CHAPTER IV

RESULTS

The following chapter provides a description of study participants as well as analyses utilized to address research questions. The chapter begins with a description of how outliers and missing data were addressed, followed by an overview of the sample. Next, the factor structure and reliability of responses to English and Spanish translations of the survey are examined. A descriptive overview of responses to measures from this combined sample is then provided followed by an examination of the statistical assumptions necessary prior to conducting hierarchical regression. Lastly, the results of the hierarchical regression analyses are discussed.

Sample Overview

Data were collected through a digital survey hosted by Qualtrics while participant recruitment was conducted primarily using Amazon’s Mechanical Turk platform (MTurk), the snowball sampling method was also used. As a function of MTurk the distribution parameters for the survey were set as to only allow access to participants whose MTurk user profile matched inclusion criteria of identifying as a male and being at least 18 years of age. Participants recruited through MTurk were provided $1.50 reimbursement for their participation regardless of the amount of the survey completed. In addition, all respondents were given the option of including contact information to be included in the cash drawing upon study completion. A total of 172 participants indicated
that they identified as adult Latinos by clicking “Agree” on the informed consent
document and completing at least some of the survey materials.

**Missing Data and Extreme Outliers**

Two inclusion criteria were implemented in addressing missing data and extreme
outliers. First, only cases with complete responses were included in the final data set. A
forced response structure was implemented for items measuring the dependent and
independent variables, thereby minimizing missing data for these variables. The
categorical nature of demographic variables precludes options such as mean replacement
as a method of addressing missing data. A total of 14 cases were excluded from analysis
for this reason. Second, a cutoff of 4 minutes was implemented as a minimum duration
for survey completion. A total of 10 cases were excluded from analysis for this reason.
Due to the length of the survey as well as the potential for unpredicted interruptions
during online completion of survey material, a rough cutoff for a maximum duration was
set at 80 minutes. A total of two cases were removed for this reason. In order to meet
statistical assumptions necessary for regression, the data was examined for extreme
outliers (± 3.0 standard deviations from mean) on all measures. A total of four cases were
removed for this reason. After screening case data for the above-mentioned criteria, a
total of 30 cases (17%) were removed. The final data set consisted of 142 participants with
slightly more surveys completed in English (n = 75) than in Spanish (n = 65).

Of the 142 participants who completed the survey, 48 reported their age. This
subset of the sample had an age range of 22-59 with an average age of 35.49.
Participant’s reported ethnic identity, native language, and previous experience with
counseling were recorded as demographic variables. The predominately reported their
ethnic identity to be Mexican American (22%) followed by Latino (18%) and Hispanic (13%). The majority of participants reported Spanish (57%) to be their native language. In addition, participants were asked whether or not they had previously engaged in counseling, to which a majority of participants (55%) indicated they had not.

**Examination of Scales**

In order to explore the factorial structure of each measure with the current sample ($N = 142$), items from each measure were subjected to principal components factor analysis with responses to Spanish ($n = 67$) and English ($n = 75$) versions of the survey. Sampling adequacy was evaluated using the Kaiser-Meyer-Olkin measure with a suggested cutoff of .60 or higher (Field, 2009). Adequacy of the item correlation structure was verified by results of Bartlett’s test of sphericity with statistically significant results indicating the item correlation structure to be adequate for factor analysis. A maximum likelihood factor analysis with a cut-off point of .50 and a Kaiser’s criterion of eigenvalues greater than 1 (Field, 2009) was utilized for factor extraction and Cronbach’s alpha was as utilized as an estimate of internal consistency reliability of items.

**Intention to Seek Counseling Inventory (ISCI).** The factor structure of the Spanish version of the ISCI was explored using responses ($n = 67$) to all 17 items translated from English to Spanish for the current study. Examination of the factor structure of the English version of the ISCI was explored using responses ($n = 75$) to all 17 items of the original ISCI.

**Spanish version.** Results of the Kaiser-Meyer-Olkin measure (KMO = .763) as well as Bartlett’s test of sphericity, $\chi^2 (136) = 525.731, p < .001$, indicated appropriateness for factor analysis. The maximum likelihood factor analysis with a cut-
off point of .50 and the Kaiser’s criterion of eigenvalues greater than 1 yielded a 3-factor solution accounting for 57% of the variance. Items loading on factor 1 were similar to the loadings reported by the original authors (Cash et al., 1975) including; “How likely would you be to seek counseling if you were experiencing relationship problems, depression or loneliness?” These items tapped into psychological and interpersonal concerns and was found to have acceptable reliability ($\alpha = .766$).

Items loading on factor 2 were similar to the loadings reported by the original authors (Cash et al., 1975) including; “How likely would you be to seek counseling if you were experiencing test anxiety or homework procrastination?” These items tapped into academic concerns and was found to have acceptable reliability ($\alpha = .754$).

Items loading on factor 3 were similar to the loadings reported by the original authors (Cash et al., 1975) including; “How likely would you be to seek counseling if you were experiencing excessive drinking, drug problems?” These items tapped into drug use concerns and was found to have acceptable reliability ($\alpha = .753$).

**English version.** Results of the Kaiser-Meyer-Olkin measure (KMO = .808) as well as Bartlett’s test of sphericity, $\chi^2 (136) = 511.068, p < .001$, indicated appropriateness for factor analysis. The maximum likelihood factor analysis yielded a similar 3-factor structure found with the Spanish version accounting for 56% of the variance. Items loading cleanly on factor 1 were similar to the loadings reported the original authors (Cash et al., 1975) including; “How likely would you be to seek counseling if you were experiencing relationship problems, depression or loneliness?” These items tapped into psychological and interpersonal concerns and was found to have acceptable reliability ($\alpha = .763$).
Items loading on factor 2 were similar to the loadings reported the original authors (Cash et al., 1975) including; “How likely would you be to seek counseling if you were experiencing test anxiety or homework procrastination?” These items tapped into academic concerns and was found to have acceptable reliability (α = .752).

Items loading on factor 3 were similar to the loadings reported the original authors (Cash et al., 1975) including; “How likely would you be to seek counseling if you were experiencing excessive drinking, drug problems?” These items tapped into drug use concerns and was found to have acceptable reliability (α = .749).

**Combined version.** Internal consistency reliability estimates indicate strong inter-item reliability for the ISCI used in the Spanish (α = .931), English (α = .960), and Combined versions (α = .953). Descriptive statistics are presented in Table 1.

**Machismo-Measure (MO).** The factor structure of the Spanish version of the M-Measure was explored using 67 responses to the 20-item measure. The examination of the factor structure of the English version was explored using 75 responses to all 20 items of the English version of the M-Measure.

**Spanish version.** Results of the Kaiser-Meyer-Olkin measure (KMO = .749) as well as Bartlett’s test of sphericity, χ² (190) = 595.763, p < .001, indicated appropriateness for factor analysis. The maximum likelihood factor analysis yielded a 2-factor solution accounting for 46% of the variance. Items loading on factor 1 were similar to the loadings reported by the original authors (Arciniega et al., 2008) including; “Men are superior to women” and “A man should be in control of his wife.” These items tapped into traditional machismo beliefs and were found to have strong reliability (α = .875).
Table 1

*Descriptive Statistics for Key Study Variables*

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<th>Study Variable</th>
<th>M</th>
<th>SD</th>
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<th>Kurtosis</th>
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<td>.435</td>
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\(N = 142\)
Items loading on factor 2 were similar to the loadings reported by the original authors (Arciniega et al., 2008) including; “Men should respect their elders” and “The family is more important than the individual” These items tapped into caballerismo beliefs and were found to have strong reliability ($\alpha = .806$)

**English version.** Results of the Kaiser-Meyer-Olkin measure (KMO = .830) as well as Bartlett’s test of sphericity, $\chi^2 (190) = 803.276, p < .001$, indicated appropriateness for factor analysis. The maximum likelihood factor analysis yielded a similar 2-factor structure found with the Spanish version accounting for 54% of the variance. Items loading on factor 1 were similar to the loadings reported by the original authors (Arciniega et al., 2008) including; “Men are superior to women” and “A man should be in control of his wife.” These items tapped into traditional machismo beliefs and were found to have strong reliability ($\alpha = .875$).

Items loading on factor 2 were similar to the loadings reported by the original authors (Arciniega et al., 2008) including; “Men should respect their elders” and “The family is more important than the individual” These items tapped into caballerismo beliefs and were found to have strong reliability ($\alpha = .806$)

**Traditional Machismo.** Internal consistency reliability estimates indicate strong inter-item reliability for the Traditional Machismo subscale used in the Spanish ($\alpha = .815$) English ($\alpha = .907$), and Combined versions ($\alpha = .878$). Descriptive statistics are presented in Table 1.

**Caballerismo.** Internal consistency reliability estimates indicate strong inter-item reliability for the caballerismo subscale used in the Spanish ($\alpha = .838$) English ($\alpha = .856$), and Combined versions ($\alpha = .831$). Descriptive statistics are presented in Table 1.
Acculturation Rating Scale for Mexican-Americans-II (ARSMA-II). The factor structure of the Spanish version of the ARSMA-II was explored using responses ($n = 67$) to all 30 items of the Spanish version of the ARSMA-II. Examination of the factor structure of the English version of the ARSMA-II was explored using responses ($n = 75$) to all 30 items of the English version of the ARSMA-II.

**Spanish version.** Results of the Kaiser-Meyer-Olkin measure (KMO = .788 as well as Bartlett’s test of sphericity, $\chi^2 (435) = 1810.700, p < .001$, indicated appropriateness for factor analysis. The maximum likelihood factor analysis yielded a 2-factor solution accounting for 61% of the variance. Items loading on factor 1 were similar to the loadings reported by the original authors (Cuellar et al., 1995) including; “I speak Spanish” and “I enjoy Spanish language movies” These items tapped into orientation toward Mexican culture and were found to have strong reliability ($\alpha = .910$).

Items loading on factor 2 were similar to the loadings reported by the original authors (Cuellar et al., 1995) including; “I like to identify as American” and “I enjoy English language TV” These items tapped into orientation toward American culture and were found to have strong reliability ($\alpha = .834$)

**English version.** Results of the Kaiser-Meyer-Olkin measure (KMO = .719) as well as Bartlett’s test of sphericity, $\chi^2 (435) = 1531.063, p < .001$, indicated appropriateness for factor analysis. The maximum likelihood factor analysis yielded a similar 2-factor structure found with the Spanish version accounting for 49% of the variance. Items loading on factor 1 were similar to the loadings reported by the original authors (Cuellar et al., 1995) including; “I speak Spanish” and “I enjoy Spanish language
movies” These items tapped into orientation toward Mexican culture and were found to have strong reliability (α = .930).

Items loading on factor 2 were similar to the loadings reported by the original authors (Cuellar et al., 1995) including; “I like to identify as American” and “I enjoy English language TV” These items tapped into orientation toward American culture and were found to have strong reliability (α = .814).

**Mexican orientation subscale (17 items).** Internal consistency reliability estimates indicate strong inter-item reliability for the Mexican Orientation subscale used in the Spanish (α = .919) English (α = .938), and Combined versions (α = .921). Descriptive statistics are presented in Table 1.

**American Orientation Subscale (13 items).** Internal consistency reliability estimates indicate strong inter-item reliability for the American orientation subscale used in the Spanish (α = .888) English (α = .890), and Combined versions (α = .885). Descriptive statistics are presented in Table 1.

**Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS).** The factor structure of the Spanish version of the IASMHS was explored using responses (n = 67) to all 24 items of the IASMHS translated from English to Spanish for the current study. Examination of the factor structure of the English version of the IASMHS was explored using responses (n = 75) to all 24 items of the original English version of the IASMHS.

**Spanish version.** Results of the Kaiser-Meyer-Olkin measure (KMO = .783) as well as Bartlett’s test of sphericity, $\chi^2 (276) = 789.520, p < .001$, indicated appropriateness for factor analysis. The maximum likelihood factor analysis yielded a 3-factor solution
accounting for 54% of the variance. Items loading on factor 1 were similar to the loadings reported by the original authors (Mackenzie et al., 2004) including; “I would willingly confide intimate matters to an appropriate person if I thought it might help me or a member of my family.” These items tapped into psychological openness and were found to have acceptable reliability (α = .732).

Items loading on factor 2 were similar to the loadings reported by the original authors (Mackenzie et al., 2004) including; “If I believed I were having a mental breakdown, my first inclination would be to get professional attention.” These items tapped into help-seeking propensity and were found to have acceptable reliability (α = .715).

Items loading on factor 3 were similar to the loadings reported by the original authors (Mackenzie et al., 2004) including; “I would feel uneasy going to a professional because of what some people would think.” These items tapped into indifference to stigma and was found to have acceptable reliability (α = .722).

**English version.** Results of the Kaiser-Meyer-Olkin measure (KMO = .753) as well as Bartlett’s test of sphericity, $\chi^2 (276) = 752.386, p < .001$, indicated appropriateness for factor analysis. The maximum likelihood factor analysis yielded a similar 3-fractor structure found with the Spanish version accounting for 48% of the variance. Items loading on factor 1 were similar to the loadings reported by the original authors (Mackenzie et al., 2004) including; “I would willingly confide intimate matters to an appropriate person if I thought it might help me or a member of my family.” These items tapped into psychological openness and were found to have acceptable reliability (α = .710).
Items loading on factor 2 were similar to the loadings reported by the original authors (Mackenzie et al., 2004) including; “If I believed I were having a mental breakdown, my first inclination would be to get professional attention.” These items tapped into help-seeking propensity and were found to have acceptable reliability ($\alpha = .730$)

Items loading on factor 3 were similar to the loadings reported by the original authors (Mackenzie et al., 2004) including; “I would feel uneasy going to a professional because of what some people would think.” These items tapped into indifference to stigma and was found to have acceptable reliability ($\alpha = .716$)

**Combined version.** Internal consistency reliability estimates indicate adequate inter-item reliability for the IASMHS used in the Spanish ($\alpha = .725$) English ($\alpha = .740$), and Combined versions ($\alpha = .738$). Descriptive statistics are presented in Table 1.

**Depression Anxiety and Stress Scale 21 (DASS-21).** The factor structure of the Spanish version of the DASS-21 was explored using responses ($n = 67$) to all 21 items of the Spanish version of the DASS-21. Examination of the factor structure of the English version of the DASS-21 was explored using responses ($n = 75$) to all 21 items of the English version of the DASS-21.

**Spanish version.** Results of the Kaiser-Meyer-Olkin measure ($KMO = .852$) as well as Bartlett’s test of sphericity, $\chi^2 (210) = 933.056, p < .001$, indicated appropriateness for factor analysis. The maximum likelihood factor analysis yielded a 3-factor solution accounting for 62% of the variance. Items loading on factor 1 were similar to the loadings reported by the original authors Henry and Crawford (2005) including; “I
felt down-hearted and blue.” These items tapped into depression symptoms and were found to have acceptable reliability ($\alpha = .932$).

Items loading on factor 2 were similar to the loadings reported by the original authors (Henry & Crawford, 2005) including; “I felt I was close to panic.” These items tapped into anxiety symptoms and were found to have acceptable reliability ($\alpha = .852$).

Items loading on factor 3 were similar to the loadings reported by the original authors Henry and Crawford (2005) including; “I found it difficult to relax.” These items tapped into stress symptoms and was found to have acceptable reliability ($\alpha = .876$).

**English version.** Results of the Kaiser-Meyer-Olkin measure (KMO = .898) as well as Bartlett’s test of sphericity, $\chi^2 (210) = 1298.98, p < .001$, indicated appropriateness for factor analysis. The maximum likelihood factor analysis yielded a similar 3-factor structure found with the Spanish version accounting for 69% of the variance. Items loading on factor 1 were similar to the loadings reported by the original authors Henry and Crawford (2005) including; “I felt I had nothing to look forward to.” These items tapped into depression symptoms and were found to have acceptable reliability ($\alpha = .916$).

Items loading on factor 2 were similar to the loadings reported by the original authors (Henry & Crawford, 2005) including; “I felt scared without any good reason.” These items tapped into anxiety symptoms and were found to have acceptable reliability ($\alpha = .838$).

Items loading on factor 3 were similar to the loadings reported by the original authors Henry and Crawford (2005) including; “I found myself getting agitated.” These
items tapped into stress symptoms and was found to have acceptable reliability ($\alpha = .872$).

**Combined version.** Internal consistency reliability estimates indicate strong inter-item reliability for the DASS-21 used in the Spanish ($\alpha = .931$) English ($\alpha = .960$), and Combined versions ($\alpha = .953$). Descriptive statistics are presented in Table 1. Given the similar factor structure between the Spanish and English versions of all measures, the remaining analyses combines the Spanish and English version and treat them as one measure.

**Examination of Assumptions**

Prior to conducting the primary analysis several preliminary analyses were conducted confirming that relevant statistical assumptions for performing a regression analysis had been met. To confirm the assumption regarding the normal distribution of residuals a visual inspection of the residuals scatterplot was conducted as well as examination of the skew and kurtosis of responses to each measure. Examination of the residuals scatterplot appeared randomly scattered with no discernable pattern providing no evidence for non-normal distribution of residuals. Komolgorov-Smirnov measures of skewness and kurtosis were then examined revealing all measures fell between -1.0 and 1.0 (see Table 1) as suggested by Huck (2012). The scatterplot of standardized residuals was examined to confirm the homoscedasticity of error estimates as well as that a linear relationship exists between independent and dependent variables. Examination of the scatterplot revealed a random scatter of points indicating that these assumptions had been satisfied. Cronbach’s alpha internal consistency reliability estimates were evaluated using items from the English and Spanish versions of each measure independently as well as
combined. Cronbach’s alpha estimates for all measures were found to be greater than the cutoff of .70 ranging from .73-.96 across English and Spanish versions.

The statistical assumptions regarding multicollinearity were examined by visual inspection of the variable correlation matrix (see Table 2) as well as review of collinearity statistics tolerance and variation inflation factor (VIF). Examination of the variable correlation matrix revealed significant relationships between intention to seek mental health services (ISCI) and attitudes toward seeking out these services (IASMHS; \( r = .178, p < .05 \)) as well as current endorsement of emotional distress (DASS-21; \( r = .208, p < .05 \)). A significant correlation was found between ratings of enculturation (MOS) and intention to seek counseling (ISCI; \( r = .213, p < .05 \)). The independent variables (TM & C) were not found to be significantly correlated with the dependent variable of intention to seek counseling (ISCI). Independence of variables was examined using the guidelines put forth by Kline (2016) who suggested of bivariate correlations between variables >.9, VIF scores >10.0, and tolerance scores < .10 as evidence of extreme multicollinearity. No evidence of multicollinearity was found using these guidelines as bivariate correlations between all variables were \( \leq .50 \), VIF scores ranged from 1.115-2.229 and tolerance scores ranged from .479-.969.

**Results of Regression Analysis**

In order to respond to the research hypotheses a hierarchical multiple regression analysis was utilized. Intention to seek counseling (ISCI) served as the criterion variable in the regression analysis. In an effort to explain the degree to which traditional machismo and caballerismo predicted intentions to seek counseling (ISCI), individual variable contributions to the model were examined.
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<th>ISCI</th>
<th>TM</th>
<th>C</th>
<th>IASMHS</th>
<th>MOS</th>
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* Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed).
Step One

In the first step of the regression the demographic variables were added to the model. The model at step one was found to be significant and explained a substantial amount of the variance in ISCI, $R^2 = .214$, adjusted $R^2 = .113$, $F(16,125) = 2.125$, $p < .05$. Three variables were found to be significant predictors of ISCI at this step. Previous Therapy, $B = .192$, $t(16,125) = 2.312$, $p < .05$; Mexican ethnicity, $B = .403$, $t(16,125) = 4.104$, $p < .05$; and Puerto Rican ethnicity, $B = .193$, $t(16,125) = 2.276$, $p < .05$, were found to have rated their intention to seek counseling higher when accounting for all other variables in the model. Results of the significant relationships on the coefficients table for this regression model at step 2 describe how previous therapy experience, Mexican ethnic identity and Puerto Rican ethnic identity relate to intention to seek out counseling services. Those who reported previous therapy experience, Puerto Rican ethnic identity or an ethnic identity other than Mexican also rated their intention to seek counseling higher when accounting for all other variables in the model.

Step Two

In the second step of the regression the total score of the IASMHS, DASS, and ARSMA-II measures were added to the model with the demographic variables. The model at step two was found to be significant and explained a substantial amount of the variance in ISCI, $R^2 = .342$, adjusted $R^2 = .233$, $F(20,121) = 3.139$, $p = .011$. Three ethnic identities found to be significant predictors of ISCI at this step. Mexican, $B = .362$, $t(20,121) = 3.882$, $p < .001$; South American, $B = .226$, $t(20,121) = 1.796$, $p < .05$; and Puerto Rican, $B = .189$, $t(20,121) = 2.365$, $p < .05$, ethnic identifiers were found to be significant predictors of ISCI. In addition, three other variables were also found to be
significant predictors of ISCI at this step. The IASMHs, $B = .313$, $t(20,121) = 3.826$, $p < .05$; MOS, $B = .236$, $t(20,121) = 2.102$, $p < .05$; and DASS-21, $B = .227$, $t(20,121) = 2.590$, $p < .05$, were found to be a significant predictors of ISCI. Results of the significant relationships on the coefficients table for this regression model at step 2 describe how current rating of psychological distress, attitudes toward seeking mental health services and enculturation relate to intention to seek out counseling services. Those who reported higher levels of current distress, enculturation, or more positive attitudes toward seeking mental health services also rated their intention to seek counseling higher when accounting for all other variables in the model.

**Response to Hypothesis 1a.** Review of results from this step of the regression confirm hypothesis 1.1 as the attitudes toward seeking mental health services variable was found to account for a significant amount of variance in intention to seek counseling to be a significant predictor of ISCI.

**Step Three**

In order to assess if traditional machismo and caballerismo added to the prediction of ISCI above and beyond the control variables, TM and C scores were added as a variable in step 2. Results of the omnibus F test indicate that the model in step 2 did not explain a significantly greater amount of the variance (see Table 3) in ISCI, $R^2 = .360$, adjusted $R^2 = .242$, $F(22,119) = 1.834$, $p = \text{ns}$, than at step 2. This result indicated that neither endorsement of traditional machismo, $B = .156$, $t(22,119) = 1.713$, ns, nor caballerismo, $B = .028$, $t(22,119) = .339$, ns, accounted for a significant amount of variance in ISCI scores after accounting for the demographic and other control variables.
Table 3

*Hierarchical Regression Analysis Summary*

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$N = 142$

* $p < .05$, *** $p < .001$
**Response to Hypotheses 1b and 1c.** Review of result from this step of the regression failed to confirm Hypothesis 1b as the traditional machismo variable was not found to be a significant predictor of intention to seek counseling ratings, $B = .156, t(22,119) = 1.713, ns$. In addition, results of this step of the regression failed to confirm Hypothesis 1c.3 as caballerismo was not found to be a significant predictor of intention to seek counseling rating.

**Summary**

This chapter began with an overview of participants as well as a description of missing or deleted cases. Scale and item examination were then presented focusing on factor structure and estimates of reliability for the Spanish and English versions of each measure. The statistical assumptions necessary for conducting a hierarchical regression were then examined providing no evidence clearly indicating any of the assumptions had been violated. Results of the primary analysis involving a hierarchical regression analysis were then presented with particular focus placed on responding to research questions.

Overall, results of the primary analysis revealed a number of important findings. Support was provided for the inclusion of a measure of current psychological distress as this variable was found to be a significant predictor of intention to seek counseling ratings at step 2 and step 3 of the regression analysis. Consistent with previous research and in confirmation of Hypothesis 1a, attitudes toward seeking mental health was also found to be a significant predictor of intention to seek counseling rating. Hypotheses 1b and 1c were found to be incorrect as neither traditional machismo nor caballerismo were found to account for a significant amount of variance in intention ratings after accounting for demographic and control variables. Interestingly, several ethnic identifiers were found
to be significant predictors of participants’ intention to seek counseling rating. Further exploration of study variables revealed a number of significant relationships.

Traditional machismo and caballerismo were found to be significantly correlated with attitudes toward seeking mental health services as well ratings of current psychological distress. The following chapter explores the potential implications of these study results for the field of Counseling Psychology as well as provide a discussion of the strengths and limitations of the current study and suggestions for future research.
CHAPTER V

DISCUSSION

The following chapter provides a discussion of the study results as they relate to previous research. Potential theoretical implications of results are then presented followed by potential implications for the field of Counseling Psychology. This chapter concludes with a discussion of the study’s limitations and suggestions for future research.

Factors such as perception of masculine role norms (Addis & Mahalik, 2003; Mansfield et al., 2003) and attitudes toward mental health (Vogel et al., 2011; Vogel, Michaels, & Grass, 2009; Vogel et al., 2005) have been shown to be influential in predicting intention to seek counseling for decades (Cepeda-Benito & Short, 1998; Kelly & Achter, 1995; Sternart, 2015). However, this research has only recently began to apply the “cultural tailoring” described by Whaley and Davis (2007) as well as suggested by other researchers. To date only a handful of studies (e.g., Kuo et al., 2015; Torres, 2014) have attempted to predict intention to seek mental health services among a sample of Latino men with appropriate consideration for culturally relevant factors of enculturation, acculturation or the bi-directional concept of Machismo proposed by Arciniega et al. (2008). While these studies provided some insight into the understanding of Latinos under-utilization of mental health services, these studies failed to include potentially relevant variables.

This study sought to address several limitations of prior research. In addition to utilizing a robust measure of enculturation and acculturation, it also incorporated
measures of current psychological distress and previous counseling experience, as these
variables have consistently been found to be related to intention to seek mental health
services (Cepeda-Benito & Short, 1998; Cramer, 1999; Leech, 2007; Zuvekas &
Fleishman, 2008). Due to the scarcity of related research and the irregular response
pattern observed, findings from all of the variables included in the survey will be now be
discussed.

Demographic Variables

Age

Participant’s age was not included as a variable in the regression analysis due to
the limited number of responses to this question. Of the 142 participants, only 50
included a response to the question “How old are you?” It is likely that a majority of
these missing responses were due to survey design. In the initial phase of data collection,
the age variable was incorrectly coded in Qualtrics and not included in the distributed
survey. Upon identifying the error, it was corrected and a second phase of data collection
was completed with the question included. Interestingly a small number of surveys
completed in this second phase were still missing responses to the age question. The use
of the MTurk program for distribution of the study survey allows for some assumptions
regarding the age of participants to be made. While it is not conclusive, it is likely that all
participants were at least 18 years old. In order to register as a user of the MTurk program
individuals must confirm that they are 18 or older (other assumptions provided by MTurk
distribution are discussed below). Although the reason for this omission is unclear, it may
reflect a general lack of comfort disclosing potentially identifying information. In
reviewing cases with missing data, it was noticed that many cases that were missing a
response to the age item also omitted a response to the following question regarding the number of years they have been in the United States.

Regardless of the reason for omission, the lack of clear data regarding the age of the sample for this study was a significant limitation. Several of the constructs utilized have noted statistically significant differences based on age. Intention to seek counseling as well as attitudes toward seeking counseling, for example, have shown to be rated higher as the age of the participant increased. The lack of inclusion of this variable in the primary analysis precluded any further comparison with previous research.

**Years in the United States**

Responses to the item inquiring as to how long the participant had lived in the United States was inconsistently responded to. Of the 142 survey responses, 32 selected the option “prefer not to say.” It was decided to include this option due to the forced response nature of the survey design in addition to any potential political or legal concerns this question may raise for participants. It was unclear as to the reason some participants chose not disclose the number of years they had lived in the United States. It was possible the reluctance to disclose this information was again related to a general lack of comfort disclosing potentially identifying information or related to potential concerns regarding the legality of residency.

A number of previous studies have included some form of inquiry regarding the length of time participants have lived in the United States, although many of these instances the response is used as a continuous measure of acculturation (Ramos, 2015). The current study utilized a more robust and strongly validated measure of acculturation that included an assessment of enculturation as well.
Native Language

Inclusion of the participant’s native language in the demographics questionnaire was a unique aspect of the current study. As a function of MTurk, the Spanish version of the survey was only distributed to users who identified Spanish as a language proficiency.

Nation of Origin

Similar to other studies involving Latinos, (Torres, 2014) participants were asked to report whether they were born in the United States, Mexico or “prefer not to say.” Similar to the previously discussed demographic variables, it was determined that offering this 3rd option was optimal given the forced response design. A total of 13 participants selected the “prefer not to say” option and, therefore, were not included in the regression analysis. The nation of origin variable was not found to be a significant predictor of intention to seek counseling rating with this sample, $B = .184$, $t(22,119) = 1.254$, $p = n.s$. It appears that those who reported being from the United States on average reported slightly higher ratings of intention to seek counseling ($M = 42.49$) than those born in Mexico ($M = 42.24$).

Related studies that have included nation of origin as a survey item (Kuo et al., 2015; Torres, 2014) typically included a significantly smaller proportion of foreign-born Latinos in their sample. The current study employed a relatively novel form of participant recruitment by utilizing the MTurk program. This method of survey distribution allowed for recruitment of a broader range of potential Latino participants found in the general population (18%) than was typically found on college campuses (8%).
Ethnic Identity

Responses to ethnic identity with the current sample represented a wide range of Latino backgrounds. The majority of participants indicated their ethnic identity to be Mexican, Mexican American, Hispano or Latino (57%) while an unexpected number reported their identity was best described as a more general South American (13%). In addition to these groupings of reported ethnic backgrounds, the island born Latinos were also represented with a few participants identifying a Cuban (4%), Puerto Rican (3%) as well as Dominican (1%). In addition, four of these ethnic identities found to be significant predictors of ISCI in the last step of the regression. Mexican, $B = .354$, $t(22,119) = 3.807, p < .001$; Hispano, $B = .201$, $t(22,119) = 2.050, p < .05$; South American, $B = .238$, $t(22,119) = 2.085, p < .05$; and Puerto Rican, $B = .181$, $t(20,121) = 2.280, p < .05$, ethnic identifiers were found to be significant predictors of ISCI. Those who reported a Puerto Rican ethnic identity or an ethnic identity other than Mexican, Hispano or South American were likely to also rate their intention to seek counseling higher when accounting for all other variables in the model. This result highlights the importance of differentiating between the many ethnic sub-groups that comprise the Latino population.

Previous Therapy

The current study made specific effort to assess for participants’ previous experience with mental health services with a single yes/no item. While this approach did not provide depth of information regarding participants’ perceptions of these experiences, it did allow for this difference to be accounted for statistically. Despite previous researchers providing evidence for the relationship between previous therapy and
attitudes toward seeking therapy services (Cabassa, 2007; Shim et al., 2009; Vogel et al., 2009), this was not found with the current study sample ($r = .80$, ns). Additionally, previous therapy experience was not found to be a significant predictor in the final step of the regression model, $B = .117, t(7,134) = 1.462, p = ns$. It is possible that these results may be in part due to unique characteristics of the current sample. The sample showed a significantly higher proportion of individuals who reported having previous counseling experience. Although the reason for this difference was not clear, there were a number of possibilities. Some of these possible participant factors could be that individuals who have had previous therapy experience may have been more interested in related research than individuals without this experience. Another possible reason may be that the sampling method introduced recruitment bias, unintentionally sampling from a participant pool that was significantly more likely to have accessed mental health services. This possible sampling limitation is discussed further in the limitations section below.

**Attitudes Related to Seeking Mental Health Services**

Similar to previous studies (e.g., Kuo et al., 2015; Torres, 2014) the attitude variable used in the current study was found to be a significant predictor of intention ratings, $B = .361, t(22,119) = 4.084, p < .001$. This result indicated that among the current sample, those who reported more positive attitudes toward seeking mental health services were more likely to also report higher intention to seek those services should they be needed. In addition to confirming this hypothesized relationship between attitudes and intention ratings, several other interesting relationships were also identified.
The attitudes variable as measured by the IASMHS total score was found to be significantly correlated with 4 other variables included in the study survey. A significant positive correlation was found between attitude and caballerismo scores ($r = .80, p < .05$), indicating those who highly endorsed elements of this masculinity ideology also reported more positive attitudes toward seeking mental health services. This result was commensurate with previous findings indicating caballerismo endorsement to be related to more positive and prosocial attitudes (Torres et al., 2002).

The two remaining significant relationships between attitude and endorsement of traditional machismo ($r = -.419, p < .001$) as well as reported psychological distress ($r = -.268, p < .001$) were both in the negative direction. These results suggested that, among the current sample, those who highly endorsed a more traditional machismo masculinity ideology were likely to have less positive attitudes toward seeking mental health services. The negative relationship found between attitude scores and current psychological distress was unlike that found in previous studies (Kuo et al., 2015; Torres, 2014). This relationship suggests that among the current sample, those endorsing higher ratings of psychological distress were likely to report less positive attitudes toward services designed for aiding in the relief of that distress. Possible implications of these relationships are discussed further in the Implications section below.

**Psychological Distress**

The inclusion of a measure to account for current psychological distress was an advancement of the current study design compared to previous studies where potential variance contributed by this variable were not accounted for (Torres, 2014). Current psychological distress as measured by the DASS-21 total score was found to be a
significant predictor of intention to seek counseling rating with the current sample, $B = .204$, $t(22,119) = 2.246$, $p < .05$. Exploration of the relationship between psychological distress and reported intention to seek mental health services revealed a significant and positive relationship ($r = .208$, $p < .05$) as found in previous research (Kuo et al., 2015; Torres, 2014). This result indicated that, as participants endorsed higher ratings of psychological distress, they were more likely to also report higher intention to seek counseling services. This result provides support for the importance of including current perceptions of distress when attempting to account for differences in intention to seek mental health services. This echoes the suggestions of previous researchers who have identified this variable as intricately related to mental health help-seeking behaviors (Cepeda-Benito & Short, 1998; Cramer, 1999; Leech, 2007; Zuvekas & Fleishman, 2008). Providing further support for its inclusion, current psychological distress rating was also found to be significantly correlated with 3 other measures used in the study survey.

In addition to the significant and negative correlation with the attitude variable described above, current rating of psychological distress was found to have a significant negative relationship with endorsement of the caballerismo masculinity ideology ($r = -.247$, $p < .05$). The result indicated that for the current sample, those who reported higher endorsement of a caballerismo ideology were likely to endorse lower ratings of current psychological distress. Conversely, traditional machismo endorsement significantly higher levels of current psychological distress. This meant that, for the current sample, endorsement of a traditional machismo ideology was associated with greater
psychological distress. Possible implications of these relationships are discussed further in the Implications section.

**Acculturation and Enculturation**

The ARSMA-II was chosen to capture a measure of enculturation and acculturation. The ARSMA-II was determined to be a more effective approach than the single item approach used by other researchers (Ramos, 2015) due in-part to its overall depth and breadth. Although the original authors (Cuellar et al., 1995) intended for an overall acculturation score to be used, retaining a separate enculturation rating was found to be important in the current study.

Following the recommendations of other researchers (Jones & Mortimer, 2014), the current study retained independent scores from the MOS Mexican Orientation Scale as a measure of enculturation and scores from the AOS as a measure of acculturation. Although acculturation as measured by the AOS total score was not found to be a significant predictor of intention ratings, \( B = -.090, t(22.119) = -1.023, p = \text{ns} \), or significantly correlated with other study variables, this was not the case with MOS scores.

Enculturation as measured by MOS total score was not found to be a significant predictor of intention ratings, \( B = .204, t(22.119) = 1.799, p = \text{ns} \). However, enculturation ratings of the current sample were found to be significantly correlated with endorsement of a traditional machismo masculinity ideology (TM; \( r = .214, p < .001 \)) as well as intention to seek counseling (ISCI; \( r = .213, p < .001 \)). The relationship among these three variables was more complicated than anticipated. Although intention ratings were not found to be significantly correlated with traditional machismo ratings, both of these
variables were significantly correlated with enculturation ratings. These results suggest that participants who endorsed higher ratings of orientation with their Latino culture also reported higher ratings of intention to seek counseling as well as greater endorsement of a traditional machismo masculinity ideology. This finding was not consistent with prior research. Possible implications of these relationships are discussed further in the Implications section below.

**Experimental Variables**

**Traditional Machismo**

It was hypothesized that traditional machismo ratings of the current sample would account for a significant amount of variance in ratings of intention to seek counseling services. The current study failed to confirm this hypothesis as TM scores were not found to be a significant predictor of intention ratings, $B = .156$, $t(22,119) = 1.713$, $p = ns$.

Previous research involving the traditional machismo variable have suggested that it is associated with some attitudes that are antithetical to the therapy process (Urrabazo, 1985). The significant negative correlation between TM score and attitude toward seeking mental health services found in the current study provides further evidence of unhealthy associations with the traditional machismo masculinity ideology. Given the well-established relationship between attitudes related to a specific behavior and the eventual performance of that behavior, the inverse relationship between traditional machismo and intention to seek counseling found in the current study is particularly concerning. Compounding this dynamic was the positive correlation identified between traditional machismo and psychological distress. Consistent with these concerning relationships, the term Machismo has a generally negative connotation (Mirande, 1997;
Torres et al., 2002; Urrabazo, 1985). In spite of this somewhat reductionist perspective, it appeared Latinos relationship with this variable was more complex. In the current study for example, TM scores were negatively correlated with attitudes toward seeking mental health services but not with the intention to seek out these services. It appeared that individuals in the current sample who reported high endorsement of traditional machismo may have held less positive attitudes toward seeking mental health services but these were not necessarily carried over to their reported intention to use these services. Addition research is need to further explore the impact of varying levels of endorsement of traditional machismo on the lived experiences of Latinos.

**Caballerismo**

The average caballerismo rating of the current sample ($M = 59.15$) were substantially higher than their average traditional machismo rating ($M = 32.77$). This result indicated that, on average, participants in the current sample identified more with the positive characteristics of caballerismo than those associated with traditional machismo. Interestingly, caballerismo scores for the current sample were not significantly correlated with traditional machismo scores. This result indicated that, at least with the current sample, high endorsement of a caballerismo masculinity ideology did not necessarily mean they had low endorsement of a traditional machismo ideology. Results of the current study regarding the caballerismo variable were similar to previous researchers who reported finding associations between caballerismo endorsement and more positive attitudes toward mental health services as well as lower ratings of current psychological distress (Kuo et al., 2015).
Implications for Counseling Psychology

The current investigation provided valuable insight into the relationships some Latinos hold with variables thought to be related to their mental health help-seeking decisions. The lack of a significant correlation between traditional machismo and caballerismo meant that these ideologies may be perceived as somewhat mutually exclusive to some Latinos despite being described by some researchers as two ends of a unitary construct (Mirande, 1997). In this sense, an intervention designed to reinforce an aspect of a caballerismo ideology among a group of Latinos, may not have any impact on their endorsement of a traditional machismo ideology.

Counseling psychologists should be aware of the potentially unhealthy associations identified with traditional machismo (less positive attitudes to counseling and higher rating of current psychological distress). In addition, the inverse relationship between caballerismo endorsement and psychological distress is a dynamic that could be beneficial for interventions with clients (i.e., reframing exercises) as well perceptions of the services provided by our field (i.e., improved attitudes toward seeking mental health services). Although neither traditional machismo nor caballerismo were found to account for variance in intention ratings in the current study, both variables were significantly correlated with attitudes toward receiving these services (see Table 2).

The stigma associated with seeking mental health services is a complex concern highlighted by other researchers as negatively impacting a myriad of relevant factors such as; attitudes toward seeking these services (Shepherd & Rickard, 2012), openness to discussing mental health concerns (Komiya, Good, & Sherrod, 2000) and intention to seek out these services should the need arise (Vogel et al., 2009). Considering the
significant relationship between these two Latino masculinity ideologies and attitudes toward seeking mental health services these constructs may provide an avenue through which these attitudes as well as the associated stigma are addressed.

The APA Working Group on Health Disparities in Boys and Men proposed several approaches that they believe should be taken to eliminate racial and ethnic health disparities including upstream (i.e., policy), midstream (i.e., program/practice), and downstream (i.e., individual) approaches (APA, 2018).

One upstream approach that counseling psychologists can take is to join national programs focused on addressing these health disparities such as the APA Federal Action Network. As a member of the Federal Action Network, psychologists can advocate on behalf of Latinos by supporting policy, funding, and research pertaining to reducing health disparities and increasing health equity in this population (APA, 2018).

The Health Equity Ambassador Program is an APA supported program that can help psychologists engage in successful midstream approaches. The Health Equity Ambassador Program provides psychologists with education, training, support and assistance with effective dissemination of health disparity information to individuals, families and the community. Counseling psychologists may utilize outreach programs such as these based in the community as well on college campuses to discuss beliefs related to more traditional machismo as well as caballerismo. Through these programs, some of the more unhealthy beliefs related to traditional machismo can be challenged by reframing help-seeking as strength and a form of self-care. Utilizing characteristics of caballerismo, clinicians can frame mental health help-seeking as a courageous endeavor that is beneficial for the family and the individual.
Downstream approaches that counseling psychologists can take should start with their own education and self-reflection regarding the variables at hand. Psychologists can reflect on their own beliefs regarding traditional machismo as well as caballerismo. This reflection should also consider what potential biases may accompany these beliefs and how they may impact the therapeutic dynamic with clients. Counseling psychologists should also consider their reactions to others who endorse some of the more polarizing beliefs associated with the traditional machismo masculinity ideology such as: Men are superior to women (Arciniega et al., 2008). Effectively challenging these beliefs in session may be difficult as they may overtly contradict the personal and professional beliefs of the clinician. A second downstream approach would be to familiarize themselves with concepts such as “Familismo” (Alegria et al., 2008; Miville & Constantine, 2006), and “Marianismo” (Núñez et al., 2016) as they are thought to be central to the caballerismo ideology. Clinicians working with Latinos should also familiarize themselves with the use of “Dichos” and “Consejos” (Comas-Díaz, 2006) as avenues of receiving support and discuss expectations regarding these concepts with their clients. In this way counseling psychologists can develop “Personalismo” (Santiago-Rivera et al., 2002) with the Latino community as well as demonstrate their commitment to providing culturally competent services. Although traditional machismo and caballerismo are masculinity ideologies typically associated with Latinos, it is likely that these concepts are more ubiquitous and experienced by individuals regardless of gender or ethnicity (Arciniega et al., 2008; Kuo et al., 2015). The relevance of these masculinity ideologies may need to be explored with our clients whether or not they identify as a member of the LatinX population.
Limitations and Future Directions

The current study implemented an ambitious bilingual design intended to expand the scope of previous investigations to include Latinos who prefer to, or only speak Spanish by providing the option for participation in English or Spanish. Despite substantial effort in all stages of design and execution, there are several notable limitations to the generalizability of results. In the following sections potential limitations of the current study are discussed in regard to potential contribution of variance unaccounted for in the regression model. Methodological limitations are then presented with particular focus on the limitations of the sampling method employed as well as instrument choice. Lastly, suggestions for future research regarding Latino’s mental health help seeking are provided.

Sample Limitations

A primary limitation of the current study is the overall sample-size ($N = 142$) relative to the within-group complexity of those who identify with one of the many Latin demographic groups.

Geographic differences. The current sample included participants who reported ethnic background to be from five different specified countries, as well as a substantial number who chose a less specific regional reference (i.e., South American) that could be one of a number of different countries within those regions. The multitude of potentially influential differences that stem from these geographic differences alone warrant a more robust exploration of these groups and their relationship with mental health help seeking. The range of cultural variations within each of these geographically differentiated groups
adds another layer of complexity that may be important to explore (Cuellar et al., 1995; Kuo et al., 2015; Ramos, 2015; Torres et al., 2002).

**Cultural differences.** Relevant cultural differences among Latinos may include complex factors such as level of acculturation and enculturation, or relatively simple differences such as language preference. In addition to these geographic and cultural considerations, chronological differences (i.e., age and years in the United States) within each of these sub-groups makes generalizations regarding Latinos as a whole complicated. While the participant sample for the current study reflected a range of backgrounds, there were only a few cases representing each category (i.e., Dominican; \( n = 1 \)).

**Age Differences.** A number of researchers have identified age as being related to an individual’s intention to seek counseling (Cabassa et al., 2006), attitudes toward counseling (Berger et al., 2005; Jagdeo et al., 2009) as well as reported use of services nationwide (Alegria et al., 2008). In addition to the small sample size, the average age of the current sample was not included in the analysis as it was not consistently reported in the English or Spanish versions of the survey. The lack of data regarding participants’ ages in the current sample prevented the inclusion of this variable all subsequent analyses. Given the relationships identified in previous studies (Berger et al., 2005; CDCHDIR, 2013; Mackenzie et al., 2006; NIMH, 2015), it was likely that participants’ age may have been influential in differences in ratings of several variables relevant to the current study including the dependent variable.

Unique differences between participants related to the above described geographic, cultural and chronological factors may have contributed some variance to
differences in intention to seek counseling scores that was not accounted for in the regression model. Additional research is needed to more fully understand the relationships among these variables for the many subgroups that comprise the Latino population.

Methodological Limitations

An unanticipated limitation of the current study was the method of participant recruitment and survey distribution. Due to a medical emergency, the intended recruitment of participants from campus and community organizations was disregarded. The recruitment of participants solely through digital means may have decreased how well the sample represented the intended population as a whole as recent research had reported Hispanic individuals to have among the lowest average internet use (Pew Research Center, 2016). Recruiting participants through the MTurk program resulted in some atypical sample characteristics in comparison to the general population. While it was possible to account for some of these differences such as age and previous therapy experience, others were more complex and can only be estimated as possible.

Psychological research tends to take place on college campuses where the student body provides a somewhat demographically predictable sample pool with college students typically being between 18 and 22 years old and about 15% or less reporting having received mental health services (Alegria et al., 2008). Previously referenced investigations regarding Latinos mental health help seeking (Kuo et al., 2015; Torres, 2014) did not record previous therapy experience, however their reported samples had an average age of 22 and 24 respectively. Although age was only recorded for a small subset of the current sample ($n = 45$), these individuals were on average 35.49 years-old, a
decade older than the samples of these previous studies. It is possible that this age difference could be manifested in a number of ways that influenced reported intention to seek services including contextually different sources of psychological distress (Alegria et al., 2008) as well as perceptions of support (Constantine et al., 2003) and self-reliance (Fragoso & Kashubeck, 2000).

According to the NIMH (2015), approximately 7-9% of Latinos in the United States reported having received mental health services previously. The current sample of Latino’s consisted of a much higher proportion of individuals who reported previously receiving mental health services (46%). It is possible that this difference in the current sample may reflect other unique characteristics that made them more likely to have sought out and to have received mental health services than their peers in the general population, such as access to healthcare that included mental health benefits.

In addition to the limitations of the size and characteristics of the current sample, the online method of recruitment and participation further decrease how representative of the larger population the current sample may be. It is possible that these limitations were manifested in some of the unique characteristics identified in the current sample including a substantially higher proportions of the current sample reporting previous therapy experience.

Limitations of measures. In any investigation instrument choice is an important decision point and should be influenced by a number of factors such as previous research and evidence of strong psychometric properties (Tabachnick & Fidell, 2001). Conducting a bi-lingual investigation requires that these properties be considered for the original version of the instrument as well the translated version. Measures utilized for the current
study were chosen with an overarching intention of maintaining consistency with instrument choice of related research where possible and substitution with superior instruments where it was deemed necessary.

Translations. The first limitation of the measures included in the study survey relates to the limited number of psychometrically sound instruments used in previous studies that also have an existing Spanish translation. Providing equivalent Spanish and English versions of the study survey required original translations of some materials to be included. The informed consent document, debriefing statement, demographics questionnaire, and the IASMHS all required original Spanish translations for the current study.

The dependent variable in the current study was measured by the most consistently used instrument in previous related studies, the ISCI (Cash et al., 1975). Despite several researchers providing evidence for the ISCI having strong psychometric properties with a Latino population, no such evidence was found with a Spanish translation of the ISCI. The bi-lingual design of the current study provided the opportunity to provide preliminary evidence of the psychometric properties of this Spanish translation with a sample of Latino adults. Due to the lack of previous translations of this instrument and potentially unique characteristics of the current sample, evidence of the psychometric properties of this Spanish translation should be interpreted with caution. Additional research is needed that includes this Spanish translation in order to evaluate its validity and reliability with individuals from the range of ethnic backgrounds that comprise the Latino group as a whole.
Previous studies of intention to seek mental health services have consistently included a measure intended to capture a rating of attitudes toward these services (Cabassa, 2007; Shim et al., 2009; Vogel et al., 2009). Similar to the intention measure, the IASMHS also required original Spanish translation as no evidence of a Spanish version of the instrument was found at the time of this study. As with the ISCI, the psychometric properties found with the current sample should be interpreted with caution as they serve as preliminary evidence of the validity and reliability of this Spanish translation.

Instrument Choice. The use of the ARSMA-II as a bi-directional measure of acculturation was determined to be the most appropriate instrument due to its intended design as being bi-directional as well as the strong validity and reliability evidence for the English and Spanish versions of the measure. A significant limitation of the current study with regards to use of this measure is the length of the survey. The 30 item ARSMA-II was a substantial increase to overall survey length. The ARSMA-II contributed more items to the study survey than the dependent (17 items) or independent variables (10 items each).

**Suggestions for Future Research**

Although the current study intended to improve upon limitations identified in previous research, further exploration of Latino’s relationships with these variables is needed. However, the multitude of within-group differences among Latinos requires that future studies regarding Latino’s mental health help seeking increase the sophistication of the study design to accommodate this complexity. In addition to addressing the underrepresentation of Latino’s in psychological research, this increased sophistication
can be achieved in-part through specificity of research questions, considerate instrument choice, and robust statistical analyses.

According to the American Psychological Association, Working Group on Stress and Health Disparities (2017), the under-representation of Latinos in psychological research is an obstacle to understanding the relationships among culturally relevant factors influencing the mental health concerns of this population. Addressing this obstacle will likely require psychologists to employ several approaches targeting different factors influencing this lack of representation. One indirect way that future research could employ is to increase the range of options provided in the demographics section of surveys. This change would allow for differentiation between the many subgroups that make up the Latino population as a whole. Another, more direct way that psychologists can address this under-representation in future research is through the sampling method used. Future research should take a multi-pronged approach to more effectively capture an accurate representation of the range of individuals that identify as Latino. In addition to the online recruitment of participants through MTurk or similar programs, it is critical that future researchers also access community agencies such as churches. This variety of recruiting avenues and locations provide the best opportunity to obtain a more representative sample of Latinos as well as minimize potential variance introduced by the sampling method.

The research questions used in future studies should be designed as to maximize the likelihood of identifying within group similarities, differences and/or effects on other variables. For example, “What relationships exist between participants reported ethnic identity and the dependent variable?” Research question wording can be optimized to
more effectively capture the culturally relevant concepts at hand (Brislin, 1986; Kohn-Wood & Hooper, 2014). This approach will allow the breadth and depth of the variations within the Latino population to be more clearly highlighted, and their relationships with study variables to be more clearly understood.

Future researchers may want to evaluate the potential benefit of using additional as well as alternative instruments to measure relevant variables. The survey for the current study was of considerable length consisting of 133 total items derived from 5 individual measures and the demographics questionnaire. In addition to the large number survey items, two of the measures used in the current study required original translations to be completed. Future research related to Latino’s mental health help-seeking may want to consider alternative instruments with fewer items to measure non-experimental variables such as enculturation and acculturation as well as psychological distress.

In regards to the enculturation and acculturation variables, authors of the ARSMA-II have reported finding some preliminary support for the psychometric properties of a shortened version of their instrument (Cuellar et al., 1995). However, at the time of the current study, no other evidence of the validity and reliability of this 12-item version was found. Future research may consider replacing the ARSMA-II for the shortened version of this instrument.

With regard to the instrument used to measure attitudes toward seeking mental health services, the ASPPHS-SF (Fischer & Turner, 1970) may provide a viable alternative to the IASMHS. The 10-item ASPPHS has been found to hold strong psychometric properties with different samples of Latinos (Cabassa, 2007; Kuo et al., 2015; Torres, 2014).
Incorporating the two alternate measures described above would decrease the overall item number of the current study from 133 to 101. This change would allow researchers to maintain the use of instruments with existing Spanish translations, as well as support for the psychometric properties of both versions (Kuo et al., 2015). In addition to the above-mentioned suggestions, future research should also evaluate what effect (if any) psychological distress has on reported endorsement of traditional machismo compared to caballerismo. Researchers should also evaluate what effect (if any) attending therapy has on endorsement of these Latino masculinity ideologies.

**Conclusions**

According to the APA Working Group on Health Disparities in Boys and Men (2018), psychologists should,

Provide quality and culturally appropriate assessment of trauma exposure and mental health needs as well as mental health and addiction care to vulnerable boys and men, especially incarcerated men, men from rural and low-income settings, and racial/ethnic and sexual minority males. (p. 5).

As the U.S. population of Latinos/as continues to increase it is critical that psychologists continue to develop the understanding of the culturally specific factors relevant to their help-seeking decisions. More research is needed focusing on the complex relationships among Latino Masculinity ideologies and attitudes toward these services, as well as how this information can be used to help bridge the service-provider gap evident within the Latino community. Considering the role of mental health in overall wellness, the disparities in mental health services are a social justice concern that our field must continue to address.
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Number 1472385)


disparities in mental health service use. *Medical Care, 46*(9), 915-923.
APPENDIX A

INSTITUTIONAL REVIEW BOARD APPROVAL
DATE: March 27, 2018
TO: Jesse Valdez, MS
FROM: University of Northern Colorado (UNCO) IRB
PROJECT TITLE: [1197316-2] Latinos’ Intention to Seek Mental Health Services: A Cultural Adaptation of the Theory of Reasoned Action
SUBMISSION TYPE: Amendment/Modification
ACTION: APPROVAL/VERIFICATION OF EXEMPT STATUS
DECISION DATE: March 26, 2018
EXPIRATION DATE: March 26, 2022

Thank you for your submission of Amendment/Modification materials for this project. The University of Northern Colorado (UNCO) IRB approves this project and verifies its status as EXEMPT according to federal IRB regulations.

We will retain a copy of this correspondence within our records for a duration of 4 years.

If you have any questions, please contact Sherry May at 970-351-1910 or Sherry.May@unco.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB’s records.
APPENDIX B

CONSENT FORM FOR HUMAN PARTICIPANTS
IN RESEARCH
The purpose of this study is to investigate the relationship between machismo, attitudes toward seeking help with mental health concerns, and Latinos intention to seek out help in the future, should it be needed. This survey should take less than 30 minutes to complete.

For this study you will be asked to complete a short survey. The survey items will inquire about your thoughts toward seeking mental health services and machismo. There are 61 of these type of items which you can rate to what extent you agree or disagree with the statement (e.g., “I would want to get professional help if I were worried or upset for a long period of time” disagree (0), somewhat disagree (1), undecided (2), somewhat agree (3), or agree (4). You will also be asked to rate your current level of emotional distress as well as how much you identify with your Latino culture as well as your American culture. There are of 51 of these statements which you can rate how often you agree or disagree with the statement (e.g., “My family cooks Mexican foods” (1), Never (2), Once in a while (3), Sometimes (4), Frequently or 5 (Most or all of the time). You will also be asked a few demographic questions for the purpose of describing participants. Your responses will remain confidential, and you will not be required to provide any identifying information. Additionally, all data will be kept in a password protected computer and erased following the mandatory 3-year period after conclusion of the study.

Your contribution to this study will benefit individuals and families that are struggling with mental health and help seeking. Risks to you are minimal. The inventory questions are most likely not sensitive, but may evoke memories and thoughts that are
sensitive to you. The benefits to you include gaining insight about yourself and your opinions regarding these important topics. Additionally, participants may choose to be entered to win one of five $20 Visa gift cards. In the event that you did want to seek counseling services for any reason after this survey you can contact the UNC’s Counseling Center by calling 970.251.2496 during office hours or 970.351.2245 after hours for Emergency Services and/or the Psychological Services Clinic by calling 970.351.1645.

Participation is voluntary. You may decide not to participate in this study and if you begin participation you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please complete the questionnaire if you would like to participate in this research. By completing the questionnaire, you will give us permission for your participation. You may keep this form for future reference. If you have any concerns about your selection or treatment as a research participant, please contact the Office of Sponsored Programs, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-2161.
El propósito de este estudio es para investigar la relación entre machismo, y actitudes hacia, la búsqueda de ayuda con la salud mental, y la intención de los Latinos de buscar ayuda en el futuro, si llegaran a ocuparla. Esta encuesta, debe de tomar menos de 30 minutos para completar.

Para este estudio se le pedirá que complete una breve encuesta. En estos artículos de la encuesta se le va a preguntar sus pensamientos hacia la búsqueda de servicios de salud mental y el machismo. Hay 61 de este tipo de artículos que usted puede calificar en que medida usted está de acuerdo o en desacuerdo con la declaración (e.g., “Me gustaría obtener ayuda profesional si me sintiera preocupado o molestar por un largo período de tiempo” desacuerdo (0), algo en desacuerdo (1), indecisio (2), parcialmente de acuerdo (3), de acuerdo (4). También se le pedirá que califique su nivel actual de angustia emocional, así como cuanto se identifica con su cultura Americana. Hay 51 de estas declaraciones que usted puede calificar con la frecuencias que usted esté de acuerdo o en desacuerdo con la declaración (e.g., “Mi familia come comida Mexicana”) (1) Nunca, (2) de vez en cuando, (3) a veces, (4) frecuentemente, (5) la mayoría o todo el tiempo). También se le harán algunas preguntas demográficas para el propósito de describir a los participantes. Sus respuestas permanecerán confidenciales, y no se le pedirá que proporcione ninguna información de identificación. Además, todos los datos se mantendrán en una computadora protegida por contraseña y borrado después del periodo obligatorio de 3 años después de la conclusión del estudio.
Su contribución a este estudio beneficiará a individuos y familias que estén luchando con la salud mental y a buscar ayuda. El riesgo para usted es mínimo. Las preguntas del invistigador, probablemente no son muy sensibles para usted. Los beneficios para usted incluyen obtener información sobre usted y sus opiniones sobre estos temas importantes. Además, los participantes pueden optar por participar para ganar una de las cinco tarjetas de regalo 20 dólares. En el caso de que usted quisiera buscar servicios consejería por cualquier razón después de esta encuesta, pueden contactar a la UNC’s Centar Consejido llamando al 970-251-2496 durante horas de oficina o llamar al 970-351-2245 después de hora de emergencia y/o la clínica de servicios del psicólogo llamando al 970-351-1645.

La participación es voluntaria. Usted puede decidir no participar en este estudio y si empieza a participar, usted puede suspender su participación en cualquier momento y retirarse. Su decisión será respetada y no resultará en la pérdida de beneficios a los cuales usted tiene derecho. Después de haber leído lo interior y de haber tenido la oportunidad de hacer cualquier pregunta, por favor complete el cuestionario si desea participar en esta investigación. Al completar el cuestionario, nos dará permiso para su participación. Usted puede guardar este formulario para referencia en el futuro. Si usted tiene alguna inquietud acerca de su selección o tratamiento como participante en la investigación, por favor contacte la oficina de programas patrocinados, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-2161.
APPENDIX C

INVENTORY OF ATTITUDES TOWARD SEEKING MENTAL HEALTH SERVICES (IA SMHS)
**INVENTORY OF ATTITUDES TOWARD SEEKING MENTAL HEALTH SERVICES (IASMHS)**

*English Version*

Instructions: In this section for each item, indicate whether you disagree (0), somewhat disagree (1), are undecided (2), somewhat agree (3), or agree (4).

The term professional refers to individuals who have been trained to deal with mental health problems (e.g., psychologists, psychiatrists, social workers, and family physicians). The term “psychological problems” refers to reasons one might visit a professional. Similar terms include mental health concerns, emotional problems, mental troubles, and personal difficulties.

<table>
<thead>
<tr>
<th></th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>There are certain problems which should not be discussed outside of one’s immediate family.</td>
<td>[0 1 2 3 4]</td>
</tr>
<tr>
<td>2.</td>
<td>I would have a very good idea of what to do and who to talk to if I decided to seek professional help for psychological problems.</td>
<td>[0 1 2 3 4]</td>
</tr>
<tr>
<td>3.</td>
<td>I would not want my significant other (spouse, partner, etc.) to know if I were suffering from psychological problems.</td>
<td>[0 1 2 3 4]</td>
</tr>
<tr>
<td>4.</td>
<td>Keeping one’s mind on a job is a good solution for avoiding personal worries and concerns.</td>
<td>[0 1 2 3 4]</td>
</tr>
<tr>
<td>5.</td>
<td>If good friends asked my advice about a psychological problem, I might recommend that they see a professional.</td>
<td>[0 1 2 3 4]</td>
</tr>
<tr>
<td>6.</td>
<td>Having been mentally ill carries with it a burden of shame.</td>
<td>[0 1 2 3 4]</td>
</tr>
<tr>
<td>7.</td>
<td>It is probably best not to know everything about oneself.</td>
<td>[0 1 2 3 4]</td>
</tr>
<tr>
<td>8.</td>
<td>If I were experiencing a serious psychological problem at this point in my life, I would be confident that I could find relief in psychotherapy.</td>
<td>[0 1 2 3 4]</td>
</tr>
</tbody>
</table>
9. People should work out their own problems; getting professional help should be a last resort.

10. If I were to experience psychological problems, I could get professional help if I wanted to.

11. Important people in my life would think less of me if they were to find out that I was experiencing psychological problems.

12. Psychological problems, like many things, tend to work out by themselves.

13. It would be relatively easy for me to find the time to see a professional for psychological problems.

14. There are experiences in my life I would not discuss with anyone.

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

16. I would be uncomfortable seeking professional help for psychological problems because people in my social or business circles might find out about it.

17. Having been diagnosed with a mental disorder is a blot on a person’s life.

18. There is something admirable in the attitudes of people who are willing to cope with their conflicts and fears without resorting to professional help.

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

20. I would feel uneasy going to a professional because of what some people would think.

21. People with strong characters can get over psychological problems by themselves and would have little need for professional help.
22. I would willingly confide intimate matters to an appropriate person if I thought it might help me or a member of my family.

23. Had I received treatment for psychological problems, I would not feel that it ought to be “covered up.”

24. I would be embarrassed if my neighbor saw me going into the office of a professional who deals with psychological problems.
El término *profesional* se refiere a individuos quienes tienen el entrenamiento apropiado en cuanto a la salud mental. (ej. psicólogos, psiquiatras, trabajadores sociales, y doctores de familia). El termino *problemas psicológicos* se refiere a razones por los cuales uno necesite visitar a un profesional. Temas similares incluyen *preocupaciones de salud mental, problemas emocionales o mentales, y dificultades personales.*

En los siguientes temas, indique si usted está en desacuerdo (0), algo en desacuerdo (1) Indeciso (2) Parcialmente de acuerdo (3) o de acuerdo (4)

<table>
<thead>
<tr>
<th>Desacuerdo</th>
<th>De acuerdo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hay ciertos problemas que no deberían discutirse fuera de la familia inmediata.</td>
<td>[0 1 2 3 4]</td>
</tr>
<tr>
<td>2. Tendría una muy buena idea de qué hacer y con quién hablar si decidiera buscar ayuda profesional para problemas psicológicos.</td>
<td>[0 1 2 3 4]</td>
</tr>
<tr>
<td>3. No quisiera que mi pareja (esposo/a, novio/a, etc.) sepa si tengo problemas psicológicos.</td>
<td>[0 1 2 3 4]</td>
</tr>
<tr>
<td>4. Mantener la mente en el trabajo es una buena solución para evitar preocupaciones personales.</td>
<td>[0 1 2 3 4]</td>
</tr>
<tr>
<td>5. Si buenos amigos me pidieran un consejo sobre un problema psicológico, podría recomendarles que vean a un profesional.</td>
<td>[0 1 2 3 4]</td>
</tr>
<tr>
<td>6. Haber estado mentalmente enfermo conlleva una carga de vergüenza.</td>
<td>[0 1 2 3 4]</td>
</tr>
<tr>
<td>7. Probablemente sea mejor no saber todo sobre uno mismo.</td>
<td>[0 1 2 3 4]</td>
</tr>
</tbody>
</table>
8. Si tuviera un problema psicológico grave en este momento de mi vida, estaría seguro de que podría encontrar alivio en la psicoterapia. [0 1 2 3 4]

9. Las personas deberían resolver sus propios problemas: obtener ayuda profesional debería ser un último recurso. [0 1 2 3 4]

10. Si tuviera problemas psicológicos, podría obtener ayuda profesional si quisiera. [0 1 2 3 4]

11. Personas importantes en mi vida pensarían menos de mí si descubrieran que estaba percibiendo problemas psicológicos. [0 1 2 3 4]

12. Los problemas psicológicos, como muchas cosas, tienden a trabajar por sí mismos. [0 1 2 3 4]

13. Sería relativamente fácil para mí encontrar el momento para consultar a un profesional para problemas psicológicos. [0 1 2 3 4]

14. Existen experiencias en mi vida, no quiero discutir con nadie. [0 1 2 3 4]

15. Me gustaría obtener ayuda profesional si me preocupaba o molesto por un largo período de tiempo. [0 1 2 3 4]

16. Yo sería incómodo buscar ayuda profesional para problemas psicológicos debido a que la gente en mi círculo social o empresarial podría averiguar de qué se trata. [0 1 2 3 4]

17. De haber sido diagnosticados con un trastorno mental es una mancha en la vida de una persona. [0 1 2 3 4]
18. Hay algo admirable en las actitudes de las personas que están dispuestas a afrontar sus conflictos y temores, sin recurrir a la ayuda profesional.

19. Si he creído que iban a tener un colapso mental, mi primera inclinación sería obtener atención profesional.

20. Me sentiría incómodo ir a un profesional por lo que algunas personas piensan.

21. Las personas con caracteres fuertes pueden superar problemas psicológicos por sí mismos y tendría poca necesidad de ayuda profesional.

22. Estaría dispuesto a confiar asuntos íntimos a una persona apropiada si pensé que podría ayudarme o un miembro de mi familia.

23. Me había recibido tratamiento para problemas psicológicos, no me parece que debería ser “cubierto.”

24. Sería yo avergonzado si mi vecino me vio entrar en la oficina de un profesional que trabaja con problemas psicológicos.
APPENDIX D

MACHISMO-MEASURE (MO)
Below are some statements that reflect opinions on a wide range of topics. We understand that in different situations different responses may be appropriate, but please respond to each statement to the best of your ability. Please respond to each statement to the best of your ability. Please tell me for each statement whether you:

1- STRONGLY DISAGREE, 2- DISAGREE, 3- DISAGREE SOMEWHAT, 4- UNCERTAIN, 5- AGREE SOMEWHAT, 6- AGREE, or 7- STRONGLY AGREE.

1. Men are superior to women.
2. In a family, a father’s wish is law.
3. The birth of a male child is more important than a female child.
4. It is important not to be the weakest man in a group.
5. Real men never let down their guard.
6. It would be shameful for a man to cry in front of his children.
7. A man should be in control of his wife.
8. It is necessary to fight when challenged.
9. It is important for women to be beautiful.
10. The bills (electric, phone, etc.) should be in the man’s name.
11. Men must display good manners in public.
12. Men should be affectionate with their children.
13. Men should respect their elders.
14. A woman is expected to be loyal to her husband.
15. Men must exhibit fairness in all situations.
16. Men should be willing to fight to defend their family.
17. The family is more important than the individual.
18. Men hold their mothers in high regard.
19. A real man does not brag about sex.
20. Men want their children to have better lives than themselves.
MACHISMO-MEASURE
Spanish Version

A continuación están algunas frases que reflejan opiniones sobre una variedad de temas. Entendemos que situaciones diferentes respuestas diferentes parecerán apropiadas, pero por favor responda a cada frase lo mejor de su capacidad. Por favor use el espacio justo a la izquierda de cada frase llenando el espacio con el número de la respuesta que más represente sus creencias personales sobre cada frase. La escala para calificar todas sus respuestas es:

1 – Totalmente en desacuerdo 2 – Desacuerdo 3 – Algo en desacuerdo
4 – Incierto 5 – Algo de acuerdo 6 – De acuerdo
7 – Totalmente de acuerdo

1. Los hombres son superiores a las mujeres.
2. Los hombres quieren que sus hijos tengan mejores vidas que las de ellos.
3. En una familia el deseo del padre es ley.
4. Un verdadero hombre no presume sobre el sexo.
5. Los hombres deben respetar a sus mayores.
6. El nacimiento de un hijo es más importante que el de una hija.
7. Los hombres consideran altamente a sus madres.
8. Es importante no ser el hombre más débil de un grupo.
9. Los hombres verdaderos nunca dejan bajar su guardia.
10. La familia es más importante que el individuo.
11. Fuera vergonzoso para un hombre llorar en frente de sus hijos.
12. Los hombres deben de estar dispuestos a pelear para defender a su familia.
13. Un hombre debe de estar en control de su esposa.
14. Es necesario pelear cuando retado.
15. Los hombres deben de demostrar imparcialidad en todas las situaciones.
16. Es importante que las mujeres sean bellas.
17. Se espera que una mujer sea fiel a su marido.
18. Las facturas (electricidad, teléfono, etc.) deben de estar a nombre del hombre.

19. Los hombres deben de mostrar buenos modales en público.

20. Los hombres deberían de ser cariñosos con sus hijos.
APPENDIX E

INTENTION TO SEE COUNSELING INVENTORY (ISCI)
INTENTION TO SEEK COUNSELING INVENTORY (ISCI)
English Version

Below is a list of issues people commonly bring to counseling. How likely would you be to seek counseling if you were experiencing these problems? Please circle the corresponding answer.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Very</th>
<th>Unlikely</th>
<th>Unlikely</th>
<th>Likely</th>
<th>Very</th>
<th>Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Weight control</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Excessive alcohol use</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Relationship differences</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Concerns about sexuality</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Depression</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Conflict with parents</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Speech anxiety</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Difficulties dating</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Choosing a major</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Difficulty in sleeping</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Drug problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Inferiority feelings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Test anxiety</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Difficulty with friends</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Academic work procrastination</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Self-understanding</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Loneliness</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
INTENTION TO SEEK COUNSELING INVENTORY (ISCI)
Spanish Version

A continuación se incluye una lista de temas que las personas suelen traer a la consejería. ¿Qué tan probable sería que buscara consejería si tuviera estos problemas? Por favor circule la respuesta correspondiente.

<table>
<thead>
<tr>
<th></th>
<th>Muy poco probable</th>
<th>Improbable</th>
<th>Probable</th>
<th>Muy Probable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Control de peso</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Uso excesivo de alcohol</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Diferencias en su relación</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Preocupaciones sobre la sexualidad</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Depresión</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Conflicto con los padres</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. Ansiedad del habla</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. Problemas en citas amorosas</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. Eligiendo una carrera</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. Dificultad para dormir</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11. Problemas de drogas</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12. Sentimientos de inferioridad</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13. Ansiedad de exámenes</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>14. Dificultad con los amigos</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>15. La dilación del trabajo académico</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>16. Auto comprensión</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>17. Soledad</td>
<td>1</td>
<td>2</td>
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APPENDIX F

ACCULTURATION RATING SCALE FOR MEXICAN-AMERICANS-II (ARSMA-II)
ACCULTURATION RATING SCALE for MEXICAN-AMERICANS-II (ARSMA-II)
English Version

Please indicate how often the following statements are true for you using the following scale: 1 = Not at all; 2 = Very little or not very often; 3 = Moderately; 4 = Much of the time or very often; 5 = Extremely often or almost always

1. I speak Spanish
2. I speak English
3. I enjoy speaking Spanish
4. I associate with Anglos
5. I associate with Mexicans and/or Mexican Americans
6. I enjoy listening to Spanish language music
7. I enjoy listening to English language music
8. I enjoy Spanish language on TV
9. I enjoy English language on TV
10. I enjoy English language movies
11. I enjoy Spanish language movies
12. I enjoy reading (e.g., books in Spanish)
13. I enjoy reading (e.g., books in English)
14. I write letters in Spanish
15. I write letters in English
16. My thinking is done in the English language
17. My thinking is done in the Spanish language
18. My contact with Mexico has been
19. My contact with the USA has been
20. My father identifies or identified himself as “Mexicano”
21. My mother identifies or identified herself as “Mexicana”
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<tbody>
<tr>
<td>22.</td>
<td>My friends, while I was growing up, were of Mexican origin</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>23.</td>
<td>My friends, while I was growing up, were of Anglo origin</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>24.</td>
<td>My family cooks Mexican foods</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>25.</td>
<td>My friends now are of Anglo origin</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>26.</td>
<td>My friends now are of Mexican origin</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>27.</td>
<td>I like to identify myself as an Anglo American</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>28.</td>
<td>I like to identify myself as a Mexican American</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>29.</td>
<td>I like to identify myself as a Mexican</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>30.</td>
<td>I like to identify myself as an American</td>
<td>(1)</td>
<td>(2)</td>
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</table>
ACCULTURATION RATING SCALE for MEXICAN-AMERICANS-II (ARSMA-II)
Spanish Version

(5) Muchísimo o casi todo el tiempo (4) Mucho o muy frecuente (3) Moderado (2) Un poquito o a veces (1) Nada

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<tbody>
<tr>
<td>1</td>
<td>Yo hablo Español</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>2</td>
<td>Yo hablo Inglés</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>3</td>
<td>Me gusta hablar en Español</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>4</td>
<td>Me asocio con Mexicanos con Anglos</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>5</td>
<td>Me asocio con Mexicanos o con Norte Americanos</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>6</td>
<td>Me gusta la musica Mexicana (musica en idioma Español)</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>7</td>
<td>Me gusta la musica de idioma Ingles</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>8</td>
<td>Me gusta ver programas en la television que sean en Español</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>9</td>
<td>Me gusta ver programas en la television que sean en Inglés</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>10</td>
<td>Me gusta ver peliculas en Español</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>11</td>
<td>Me gusta ver peliculas en Inglés</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>12</td>
<td>Me gusta leer en Español</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>13</td>
<td>Me gusta leer en Inglés</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>14</td>
<td>Escribo (como cartas) en Español</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>15</td>
<td>Escribo (como cartas) en Inglés</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>16</td>
<td>Mis pensamientos ocurren en el idioma Inglés</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>17</td>
<td>Mis pensamientos ocurren en el idioma Español</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>18</td>
<td>Mi contacto con Mexico ha sido</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>19</td>
<td>Mi contacto con Estados Unidos ha sido</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>20</td>
<td>MI padre se identifica (o se identificaba) como Mexicano</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>21</td>
<td>Mi madre se identifica (o se identificaba) como Mexicana</td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
</tbody>
</table>
22. Mis amigos(as) de mi niñez eran de origen Mexicano

23. Mis amigos(as) de mi niñez eran de origen Anglo Americano

24. Mi familia cocina comidas Mexicanas

25. Mis amigos(as) recientes son Anglo Americanos

26. Mis amigos(as) recientes son Mexicanos

27. Me gusta identificarme como Anglo Americano

28. Me gusta identificarme como Mexican o Norte Americano

29. Me gusta identificarme como Mexicano

30. Me gusta identificarme como un(a) Americano
APPENDIX G

DEPRESSION ANXIETY STRESS SCALE-21 (DASS-21)
DEPRESSION ANXIETY STRESS CAPE (DASS-21)
English Version

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all - NEVER
1 Applied to me to some degree, or some of the time - SOMETIMES
2 Applied to me to a considerable degree, or a good part of time - OFTEN
3 Applied to me very much, or most of the time - ALMOST ALWAYS

1. I found it hard to wind down 0 1 2 3
2. I was aware of dryness of my mouth
3. I couldn’t seem to experience any positive feeling at all
4. I experienced breathing difficulty
5. I found it difficult to work up the initiative to do things
6. I tended to over-react to situations
7. I experienced trembling (eg, in the hands)
8. I felt that I was using a lot of nervous energy
9. I was worried about situations in which I might panic and make a fool of myself
10. I felt that I had nothing to look forward to
11. I found myself getting agitated
12. I found it difficult to relax
13. I felt down-hearted and blue
14. I was intolerant of anything that kept me from getting on with what I was doing
15. I felt I was close to panic
16. I was unable to become enthusiastic about anything 1 2 3 4
17. I felt I wasn’t worth much as a person 1 2 3 4
18. I felt that I was rather touchy
19. I was aware of the action of my heart in the absence of physical exertion
20. I felt scared without any good reason
21. I felt that life was meaningless
Por favor lea las siguientes afirmaciones y coloque un círculo alrededor de un número (0, 1, 2, 3) que indica cuánto esta afirmación le aplicó a usted *durante la semana pasada*. No hay respuestas correctas o incorrectas. No tome demasiado tiempo para contestar.

*La escala de calificación es la siguiente:*

0  No me aplicó  
1  Me aplicó un poco, o durante parte del tiempo  
2  Me aplicó bastante, o durante una buena parte del tiempo  
3  Me aplicó mucho, o la mayor parte del tiempo  

1. Me costó mucho relajarme  
2. Me di cuenta que tenía la boca seca  
3. No podía sentir ningún sentimiento positivo  
4. Se me hizo difícil respirar  
5. Se me hizo difícil tomar la iniciativa para hacer cosas  
6. Reaccioné exageradamente en ciertas situaciones  
7. Sentí que mis manos temblaban  
8. Sentí que tenía muchos nervios  
9. Estaba preocupado por situaciones en las cuales podía tener pánico o en las que podría hacer el ridículo  
10. Sentí que no tenía nada por que vivir  
11. Noté que me agitaba  
12. Se me hizo difícil relajarme
13. Me sentí triste y deprimido

14. No toleré nada que no me permitiera continuar con lo que estaba haciendo

15. Sentí que estaba al punto de pánico

16. No me pude entusiasmar por nada

17. Sentí que valía muy poco como persona

18. Sentí que estaba muy irritable

19. Sentí los latidos de mi corazón a pesar de no haber hecho ningún esfuerzo físico

20. Tuve miedo sin razón

21. Sentí que la vida no tenía ningún sentido
APPENDIX H

DEMOGRAPHICS QUESTIONNAIRE
1. Please indicate the option that best describes your ethnic identification.

(1) Mexican
(2) Mexican American
(3) Chicano
(4) Mestizo
(5) Hispano
(6) Latino
(7) Central American
(8) South American including Brazil
(9) Cuban
(10) Puerto Rican
(11) Dominican
(12) Mixed ethnicity
(13) Other

2. Please indicate where you were born

(1) United States
(2) Mexico
(3) Other

3. How many years have you lived in the U.S.?

4. What is your native language?

(1) English
(2) Spanish
(3) Other

5. Have you ever received counseling or mental health services?

(1) Yes
(2) No
CUESTIONARIO DEMOGRAFICO
Spanish Version

1. Por favor indique cuál de las siguientes opciones describe mejor la forma en que se identifica étnicamente:_________________
   (1) Mexicana/o
   (2) Mexicoamericano/a
   (3) Chicana/o
   (4) Mestiza/o
   (5) Hispana/o
   (6) Latino
   (7) Centroamericana/o
   (8) Sudamericana/o, incluyendo Brasileña/o entre otros
   (9) Cubana/o
   (10) Boricua/Puertorriqueño
   (11) Dominicana/o
   (12) Etnia mixta; Los padres son de dos grupos étnicos diferentes
   (13) Otros

2. Por favor, indique el lugar de nacimiento para usted
   (1) México
   (2) Estados Unidos
   (3) Otro

3. Años que usted lleva viviendo en los EU?

4. Su idioma nativo es:
   (1) Inglés
   (2) Español
   (3) Otro

5. Alguna vez recibió servicios de consejería?
   (1) Si
   (2) No
APPENDIX I

AUTHOR PERMISSIONS TO USE MEASURES
Jesse,
Of course you can use it. I am not in the office today so don't have access to all my files. I do have the measure and scoring and translation if you would like. Let me know. Good luck with your study. I would appreciate if you would send me your study as I keep these on file.
P I

Good luck
Hi Jesse,
Of course, please feel free to use the translated instrument for your research. Your study sounds very interesting. All the best!

Dr. Alma Roldan, C. Psych
Clinical Psychologist
APPENDIX J

MANUSCRIPT FOR PUBLICATION
LATINOS’ INTENTION TO SEEK MENTAL HEALTH SERVICES:
A CULTURAL ADAPTATION OF THE THEORY OF
REASONED ACTION

Jesse A. Valdez and Brian D. Johnson

University of Northern Colorado
Abstract

Latinos are at unique risk for experiencing untreated mental illness. These men face structural, cultural and gender specific barriers that may inhibit their use of counseling services. The current study provided greater insight into the factors that positively influence Latinos intention to seek these services. Building upon previous research, the current bi-lingual study recruited participants from Northern Colorado. Using an empirically supported model for explaining human behavior, the influence of traditional machismo, caballerismo, and attitudes as they relate to Latinos intention to seek counseling services were examined. In addition, the current study included measures of psychological distress, acculturation and enculturation, as well as previous counseling experience, as these factors have been found to independently relate to ratings of intention to seek counseling. Results of the hierarchical regression analysis involved 142 self-identified Latino men which revealed that current psychological distress and attitudes toward seeking mental health services to be significant predictors of intention to seek counseling ratings. Although neither traditional machismo nor caballerismo were found to account for a significant amount of variance in intention ratings, both variables were significantly correlated with attitudes toward seeking mental health services as well as ratings of current psychological distress. Potential implications for the field of counseling...
psychology was discussed, including suggestion for improving interventions with clients (i.e., reframing exercises) as well as perceptions of the services provided by our field (i.e., improved attitudes toward seeking mental health services). The lack of statistically significant findings, as well as the exploratory nature of this study, suggested the need for further research to better understand the complex relationships among Latino Masculinity ideologies and attitudes toward seeking mental health services.

*Keywords:* intention to seek counseling, machismo, caballerismo, attitude toward seeking counseling services
America has one of the highest prevalence rates of mental illness of all developed countries (World Health Organization [WHO], 2004, 2010, 2016). According to the Center for Behavioral Health Statistics and Quality (CBHSQ, 2018) the most current estimates among adults in the United States are: that roughly one in four adults meet criteria for a diagnosable mental illness in the past year. Despite over a decade of literature detailing the empirical support and cost effectiveness for psychological intervention, a vast number of individuals who meet criteria for a diagnosable mental illness do not utilize mental health services.

Unfortunately, it has become anticipated that as many as half of the individuals in the United States who meet diagnostic criteria will go untreated (CBHSQ, 2018; Kessler et al., 2005;). This “provider-service gap” (Raviv, Raviv, Vago-Gefen, & Fink, 2009) between the prevalence of mental illness and the use of mental health services exists across gender (Berger, Addis, Green, Mackowiak, & Goldberg, 2012), and ethnicity (WHO, 2016) impacting millions of Americans.

**Previous Research on Mental Health Utilization**

In an effort to better understand the under-utilization of mental health services, researchers have identified numerous barriers. These barriers can be categorized as: structural, client or cultural and attitudes. Echeverry, (1997) Structural barriers can include: lack of insurance coverage and the high cost of services, as well as the lack of Spanish speaking clinicians. Client and culture variables are those related to the client themselves including: age, gender, ethnicity, language preference and level of acculturation and enculturation. Attitude related barriers include an individual’s
perception of themselves as well as others as they relate to mental health services. The following sections will give an overview Latinos mental health help seeking literature.

**Structural Barriers**

Lack of insurance coverage is a commonly cited barrier to counseling services for many Latinos (Berdahl & Torres Stone, 2009; Bridges, Andrews, & Deen., 2012). In addition to lack of insurance, a large number of Latinos live below the poverty line compounding the financial limitations preventing those without insurance from pursuing services. The general lack of Spanish speaking mental health clinicians in the field may also inhibit many Latinos from utilizing counseling services. It is possible that even Latinos who can speak English may prefer to discuss personal information in Spanish (Echeverry, 1997).

**Gender differences in mental health utilization.** Distinct gender differences in mental health service utilization have been found, with men being far less likely than women to access these services (Cabassa, 2007; Good, Dell, & Mintz, 1989). Latino men, specifically, are estimated to be half as likely as Latina women to utilize mental health services when needed (Addis & Mahalik, 2003; Sternart, 2015). This means that of the millions of Latino men struggling with mental health, only 1 in 11 are predicted to utilize mental health services (WHO, 2016). Perhaps the most troubling consequence of Latino men’s under-utilization, is that a reported 85% of completed suicides among Latinos/as are completed by Latino men (WHO, 2010, 2016).

**Ethnic differences in mental health service utilization.** While the prevalence of mental illness does not differ significantly across ethnic groups, the utilization of mental health services does (WHO, 2016). Ethnic minorities tend to access mental health
services at a much lower rate than their Caucasian peers (Berdahl & Torres Stone, 2009). Latinos/as have been found to be about half as likely as Caucasian men and women to access these services when in need (CBHSQ, 2018; WHO, 2016).

**Level of acculturation.** The measurement of Latino acculturation is commonly limited to a single item response of language preference or number of years in the United States (Ramos, 2015). According to Cuellar, Arnold, and Maldonado (1995), acculturation is a robust construct, comprised of several independent factors that are not captured by language preference or number of years in the United States alone. Although level of acculturation has been found to be significantly related to Latino’s mental health, language preference and number of years in the U.S. alone do not account for Latino men’s lower use of mental health services (Barrera & Longoria, 2018; Ramos, 2015). In addition to being under-studied and under-sampled, the heterogeneity within the Latino population makes it critical that investigations involving this population include a measure of acculturation (Torres, Solberg, & Carlstrom, 2002)

**Psychological distress and previous counseling experience.** After more than three decades of related investigations, many researchers agree that a participant’s current level of psychological distress is a critical variable to include in predicting an individual’s intention to seek psychological services (Cepeda-Benito & Short, 1998; Cramer, 1999; Leech, 2007; Zuvekas & Fleishman, 2008). Similarly, there is also a well-established relationship between previous counseling experience and intention to seek these services again (Fischer & Farina, 1995; Fischer & Turner, 1970).
Attitude Related Barriers

**Attitudes toward seeking counseling services.** One of the most commonly identified predictors of men’s intentions to seek mental health services is their attitude toward these services (Fischer & Turner, 1970; Vogel Wester, Wei, & Boysen, 2005.) Negative attitudes toward seeking mental health services has been found to be related to lower ratings of intention to seek these services (Deane & Todd, 1996; Leong & Zachar, 1999). Conversely, more positive attitudes have been found to significantly predict higher intention to seek mental health services (Johnson, 2001; Mackenzie, Gekoski, & Knox, 2006). A review of responses to the National Comorbidity Survey (NCS; Jagdeo, Cox, Stein, & Sareen, 2009) indicated that Americans overall tend to have more negative attitudes toward seeking mental health services. Consistent with related literature, Jagdeo et al. (2009) found that men had reported even less positive attitudes than women. The researchers suggest that men’s tendency to underutilize mental health services may be due to holding more negative attitudes toward seeking these services. This proposed relationship between negative attitudes and lower intention to seek services does not explain the under-utilization of these services for Latino men (Pederson & Vogel, 2007; Sharpe & Heppner, 1991). A secondary analysis of the data from the national comorbidity survey replication (NCS-R) indicated that the Latino participants actually endorsed more positive attitudes toward seeking mental health services than their Caucasian peers (Shim, Compton, Rust, Druss, & Kaslow, 2009).

**Masculinity ideology.** Men’s gender specific role norms or “masculinity ideology” (Thompson & Pleck, 1986) have been described as cultural beliefs about gender roles (Levant, Wimer, Williams, Smalley, & Noronha, 2009). These beliefs are
often expressed through norms and stereotypes that communicate the expectations of men’s behavior (Thompson & Pleck, 1986). A number of researchers have included measures of this construct in their investigations related to mental health help seeking intentions (Berger, Levant, McMillan, Kelleher, & Sellers, 2005; Levant et al., 2013). Goddard (2003) reported that, when attitudes and subjective norms were examined together, they explained 63% of the variance in ratings of intention to seek counseling services (Goddard 2003).

Given the importance of culture in determining these beliefs, (Addis & Mahalik, 2003) it is important to explore the masculinity ideology of Latino men. The conceptual understanding of Latino masculinity has expanded substantially in recent years. The term typically used to describe Latino masculinity is machismo, and is characterized by values such as sexism, chauvinism, and hyper-masculinity (Urrabazo, 1985). Although these values have been endorsed by men across ethnic groups, the term machismo has historically been attached to the masculine ideology of Latino men. Recent research suggests that a majority of Latino men today do not endorse these values (Ramos, 2015). In contrast to the predominately negative connotations of machismo, the term caballerismo has been used to describe the positive values endorsed by many Latinos. This term reflects more prosocial attributes such as respect, dignity, honor, and treating others kindly (Arciniega, Anderson, Tovar-Blank, & Tracey, 2008; Berger et al., 2005). Unfortunately, these culturally relevant constructs are often not included in investigations regarding Latino’s intention to seek mental health services.
Overall, Latinos tend to underutilize counseling services compared to Latinas as well as their peers from varying ethnic backgrounds (Alegria et al., 2002). Further complicating the struggle of these men are the many structural, cultural and gender related barriers these men face. It is critical that related research include in its design, a method for identifying within group differences by including a detailed demographics questionnaire as well as ratings of acculturation/enculturation. In addition to Latinos being underrepresented in literature, they may also be misrepresented when lumped into one homogenous group for between group comparisons.

The purpose of the current study was to investigate differences in two cultural attitudes and their relationship to intention to seek mental health services among a population of Latino men. This study addressed several limitations of prior research. In addition to utilizing a robust measure of acculturation, the current study also accounted for potential differences in current psychological distress, and previous counseling experience as these variables have consistently been found to be related to intention to seek mental health services. The current study attempted to respond to the following research question and corresponding hypotheses.

**Research Question 1**

Q1 Do the independent variables (traditional machismo & caballerismo) account for a significant amount of variance in ratings of intention to seek counseling services after controlling for important demographic variables?

**Research Hypotheses**

H1a Attitudes will explain a significant ($p < .05$) amount of variance in intention to seek counseling ratings after accounting for control variables.

H1b Traditional machismo will explain a significant ($p < .05$) amount of variance in intention to seek counseling ratings after accounting for the variance explained by the control variables (acculturation rating, current
psychological distress, previous counseling experience, and demographic information).

H1c  Caballerismo will explain a significant ($p < .05$) amount of variance in intention to seek counseling ratings after accounting for control variables.

**Definition of Terms**

*Acculturation* will be defined as the extent to which an individual identifies with his American culture.

*Attitudes toward seeking mental health services* will be defined as an individual’s perceptions of seeking help for psychological concerns such as depression or anxiety.

*Caballerismo* will be defined as the ideology that reflects the more positive values associated with machismo such as chivalry.

*Enculturation* will be defined as the extent to which an individual identifies with his culture of origin (i.e., Mexico or Cuba).

*Intention to Seek Mental Health Services* will be defined as the extent to which an individual would endorse the desire to pursue counseling services should they experience psychological distress.

*Machismo* will be defined as a multi-dimensional construct encompassing both traditional machismo and caballerismo ideologies.

*Masculinity Ideology* will be defined as set of gender specific beliefs, values and expectations that influence men’s perception of what is considered acceptable behavior.

*Traditional Machismo* will be defined as the ideology that reflects the stereotypically negative values associated with machismo such as hyper masculinity.
Participants

The target population for the current study were adults ages 18 and older who identify as being male, Latino, or as having a Latin ethnic background. Additionally, participants must have been able to read and understand either English or Spanish on at least a 6th grade level. Due to the exploratory nature of the current study, no additional inclusion criteria were required. The final data set consisted of 142 participants.

Recruitment

In an effort to increase sample diversity and participation, the multipronged approach suggested by other authors will be used (Kuo, Roldan-Bau, & Lowinger, 2015; Torres, 2014). The strategies utilized for the current study were the online platform M-Turk and a “snowball” sampling procedure. The M-Turk platform allows users to specify inclusion criteria requested and then forwards the survey to all users meeting inclusion criteria. The “snowball” sampling technique is a method of soliciting potential participants to share the study with others they know whom they believe meet inclusion criteria. Participants were encouraged to share the study information with their friends and family. An incentive for participation will be offered which is discussed further in the procedures section.

A power analysis was conducted via G*Power 3.1 (Faul, Erdfelder, Lang, & Buchner, 2007) to determine an adequate sample size for the statistical analysis in the current study. Several parameters were set for this power analysis. To conduct the intended regression analysis using three independent variables and one dependent variable with an intended power of .80 and an alpha error probability of .05, a sample size of 108 participants was needed to detect an effect size of $f = .15$ or greater (G*Power
3.1) Given the use of M-Turk as well as a snowball sampling approach, it was not possible to record the response rate for the current study.

**Procedures**

Approval to conduct research was obtained from the University of Northern Colorado's (UNC) Institutional Review Board (IRB). Following this, the survey was constructed using the Qualtrics platform and distributed through M-Turk. In an effort to encourage the participation of individuals who prefer or predominately speak Spanish, participants were able to choose to complete all parts of the study in Spanish or English.

**Administration Procedures**

Those choosing to participate were able to do so by accessing the link to survey materials from any computer or smart phone. This link navigated participants to the web-based survey materials hosted by Qualtrics software. Upon arriving at survey materials, these study participants were presented with a page that has two icons requesting the reader to choose whether they would like to read in English or Spanish. Participants were able to select their preference by clicking on the corresponding icon. The remainder of study materials were presented in the chosen language. Following their selection, the reader was then navigated to a digital copy of the informed consent document. In the informed consent, participants were notified of the purpose of the study, as well as provided with example survey questions, and a more in-depth explanation of the voluntariness of their participation. My contact information as well as the contact information for the University of Northern Colorado IRB was also listed in this document. It was made clear that although we would like for participants to complete all of survey materials, participants were not required to complete a specific amount of the
survey to be entered in the gift card drawing. At the end of this document, readers were asked to indicate whether or not they would like to participate by clicking on either the “Yes” or “No” icon located at the bottom of the page. Those who chose to participate by clicking “Yes” were then presented with survey materials.

Survey sections were presented in the following order: the ISCI, followed by the ARSMA-II, the DASS-21, the M-Measure, the IASMHS, and finishing with the demographics questionnaire. In order to ensure the anonymity of participants, upon either completion of the survey or discontinuation of participation, participants were navigated to a closing page thanking them for their time. Those who choose the “No” icon after reading the informed consent were navigated to the same closing page as those who chose to participate. As a function of Qualtrics, once navigated to this closing page survey responses were transmitted to a password protected server via file transfer protocol (FTP). Only myself, and my dissertation chair had this password. This closing page also gave participants and those who decline participation the option to be entered into the gift card drawing. Participants were asked to indicate their choice by clicking on either a “yes” or “no” icon. Those who chose to be entered into the drawing were navigated to a separate, single item survey that allowed participants to leave their desired contact information. Using a separate survey to conduct the drawing ensured that this information was not be connected to any survey responses. In addition, to ensure that survey responses were not linked to any contact information including Internet-based forms of identification (i.e., email address), Qualtrics did not save Internet IP addresses of participants.
Measures

The survey was comprised of 112 items from included measures of attitudes and intentions toward seeking counseling services, as well as measures of Latino masculinity, acculturation and enculturation. Lastly, survey items also included a measure of current psychological distress. In an effort to address potential language barriers as well as increase the diversity of the sample, two equivalent versions of the survey (English and Spanish) were made available to participants. The following sections describe the nature of the instruments included in the survey and scoring as well as validity and reliability information for each of the measures that were used in the current study.

The Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS)

The IASMHS (Mackenzie, Knox, Gekoski, & Macaulay, 2004) is a 24-item instrument designed to provide a measure of attitudes toward seeking mental health services for individuals of all ages. The IASMHS asks participants to respond to eight items from three domains (psychological openness, help-seeking propensity, and indifference to stigma) indicating whether they disagree (0), somewhat disagree (1), are undecided (2), somewhat agree (3), or agree (4) with each statement. Items 1, 3, 4, 7, 9, 11, 12, 14, 17, 18, 20, 21, and 24 are reverse coded due to the nature of their wording. This measure typically takes less than ten minutes to complete. Scores for each subscale (0-32) are added together to provide an overall measure of attitudes toward seeking counseling services (0-96). An example of an item from the psychological openness subscale is “It is probably best not to know everything about oneself.” An example of an item from the help-seeking propensity subscale is “I would want to get professional help...
if I were worried or upset for a long period of time” and an example of an item from the indifference to stigma subscale is “I would feel uneasy going to a professional because of what some people would think.”

**Spanish translation of the IASMHS.** The IASMHS was translated into Spanish with the help of two bi-lingual colleagues using the forward-back method. The original IASMHS was first translated into Spanish by the first colleague and translated back to English by the second colleague. This final translated version was then compared to the original IASMHS and found to be identical. Internal consistency reliability estimates using Cronbach’s alpha were expected to be greater than or equal to .70 (Heppner, Wampold, & Kivlighan, 2008). In addition to recording reliability estimates and an analysis of variance, an exploratory factor analysis was conducted on responses from both the English as well as Spanish versions in order to support the validity of the factor structure of each instrument.

**Operational definition for the proposed study.** For the current study I defined attitudes toward seeking mental health services as measured by the total score of the IASMHS (0-96), with higher scores reflecting more positive attitudes toward seeking counseling services. Given the internal consistency for the total score as well as the high correlation between subscale scores and the total score I used the total score for this purpose.

**The Machismo Measure (M-Measure)**

The M-measure (Arciniega et al., 2008) is a 20-item instrument assessing the endorsement of values related to Latino men’s masculinity. The measure consists of two 10-item subscales, one addressing traditional machismo (TM) values and the other
addressing caballerismo (CA) values. Respondents are asked to rate their agreement with each item on a Likert-type scale from 1 (strongly disagree) to 7 (strongly agree). This instrument typically takes less than 10 minutes to complete. The mean score from each subscale is used to provide an independent measure of traditional machismo values (1-7) and of caballerismo values (1-7). Higher scores on each subscale reflect stronger agreement with the associated values. The TM subscale assesses endorsement of values commonly associated with traditional machismo such as: hyper-masculinity and adherence to rigid sex role stereotypes. An example of an item from the TM subscale is; “Real men never let their guard down.” The CA subscale assesses endorsement of values commonly associated with caballerismo such as: familial and social responsibility. An example of an item from the Caballerismo scale is; “Men must display good manners in public” (Arciniega et al., 2008).

Operational definition for the proposed study. I evaluated endorsement of traditional machismo values as measured by the mean score of items from the TM subscale of the M-Measure (10-70) with higher scores reflecting greater endorsement of values associated with traditional machismo. The current study also evaluated endorsement of caballerismo values as measured by the mean score from the C subscale of the M-Measure (10-70). Again, higher scores reflected greater endorsement of values associated with caballerismo.

The Intention to Seek Counseling Inventory (ISCI)

The ISCI (Cash, Begley, McCown, & Weise, 1975) is a 17-item inventory which provides a measure of an individual’s intention to seek counseling services. The inventory is comprised of items addressing three types of concerns for which individuals
typically seek counseling services: (a) psychological and interpersonal concerns; (b) academic concerns; and (c) drug problems. Respondents are asked to rate how likely they are to seek counseling for each concern on a Likert-type scale ranging from 1 (Very unlikely) to 6 (Very likely). Scores are then added together to provide an overall measure of intention to seek counseling (17-112) with higher scores reflecting a greater intention to seek services.

**Operational definition for the proposed study.** In consideration of the high subscale correlations and the total score consistently reported as having the strongest internal consistency reliability estimates, I evaluated intention to seek counseling services as measured by the total score of the ISCI (17-112) with higher scores reflecting a greater intention to seek out these services.

**Acculturation Rating Scale for Mexican-Americans-II (ARSMA-II)**

The ARSMA-II (Cuellar et al., 1995) consists of two subscales addressing language preference, ethnic identity, and ethnic interaction. The first subscale (Mexican Orientation Scale-MOS) consists of 17 items and provides a measure of enculturation, or orientation toward Mexican culture. The second subscale (American Orientation Scale-AOS) consists of 13 items and provides a measure of acculturation, or orientation toward American culture. Respondents are asked to rate the frequency of their agreement with each item using a Likert-type scale from 1 (Never) to 5 (Most or all of the time). An example of an item from the MOS is: “I enjoy Spanish language TV.” An example of an item from the AOS is: “I enjoy listening to English language music.”
Operational definition for the proposed study. I followed the scoring procedures recommended by Jones and Mortimer (2014). Acculturation was defined as the mean score of items from the AOS (13-65). Enculturation was defined as the mean score of items from the MOS (17-85). The ARSMA-II typically takes less than 10 minutes to complete.

Depression, Anxiety and Stress Scale-21 (DASS-21)

The DASS-21 (Henry & Crawford, 2005) is an abbreviated version (21 items) of the full Depression Anxiety and Stress Scale (Lovibond & Lovibond, 1995). The DASS-21 (Henry & Crawford, 2005) retained seven items from each of the three subscales (depression, anxiety, and stress) of its predecessor providing a unidimensional estimate of respondents’ current psychological distress. Items consist of statements describing common symptoms of depression, anxiety, and stress. Respondents are asked to indicate how often each statement applied to them in the last week from 0 (Did not apply to me at all) to 3 (Applied to me very much, or most of the time). Scores for the seven items within each subscale are then multiplied by two providing a rating of depression (0-42), Anxiety (0-42), and Stress (0-42) with higher scores reflecting endorsement of greater distress of that type. The aggregate of these scores is used as a rating of overall psychological distress. This measure typically takes less than 10 minutes to complete. A sample question from the Depression subscale is; “I found it difficult to work up the initiative to do things.” A sample question from the Anxiety subscale is; “I felt I was close to panic.” A sample question from the Stress subscale is; “I felt that I was rather touchy.”
Demographics Questionnaire

Participants were asked to complete a demographics questionnaire indicating their age, ethnicity, country of origin, and whether they have had any previous counseling experience. A Spanish translation of the demographics questionnaire was produced using the same procedure used to translate the IASMHS (described above).

In order to address the three research hypotheses a hierarchical multiple linear regression analysis was conducted. It was expected that statistically significant ($p < .05$) regression coefficients will be found for each independent variable (traditional machismo, caballerismo, and attitudes) on the dependent variable (intention to seek counseling).

Interpretation of Results

To confirm these hypotheses, I interpreted standardized coefficients ($\beta$), $F$ values, and their significance level, based on an (adjusted) alpha of $p < .05$. I interpreted the regression coefficients between the control variables and the total score of the ISCI based on an (adjusted) alpha of $p < .05$. The regression coefficients resulting from the second step of the regression were then evaluated to respond to each research hypothesis individually. More specifically, in order to confirm hypothesis (H1a) I interpreted the regression coefficients between the total score on the IASMHS and the total score of the ISCI to determine whether or not attitudes toward seeking mental health services explained a significant amount of variance in ratings of intention to seek counseling services based on an (adjusted) alpha of $p < .05$. I also examined the directionality of the coefficient to determine if the relationship between attitudes and intention to seek
counseling was in the positive direction as found in previous research (Kuo et al., 2015; Torres, 2014).

In order to confirm hypothesis (H1b), I interpreted the regression coefficients between scores on the TM subscale of the M-Measure and the total score of the ISCI to determine whether or not traditional machismo explained a significant amount of variance in ratings of intention to seek counseling services based on an (adjusted) alpha of \( p < .05 \). I also examined the directionality of the coefficient to determine if the relationship between traditional machismo and intention to seek counseling was in the negative direction as found in previous research (Kuo et al., 2015; Torres, 2014).

In order to confirm hypothesis (H1c), I interpreted the regression coefficients between scores on the C subscale of the M-Measure and the total score of the ISCI to determine whether or not caballerismo explained a significant amount of variance in ratings of intention to seek counseling services based on an (adjusted) alpha of \( p < .05 \). I also examined the directionality of the coefficient to determine if the relationship between caballerismo and intention to seek counseling was in the positive direction as found in previous research (Kuo et al., 2015; Torres, 2014).

**Results**

**Sample Overview**

Data were collected through a digital survey hosted by Qualtrics while participant recruitment was conducted primarily using Amazon’s Mechanical Turk platform (MTurk), the snowball sampling method was also used. As a function of MTurk the distribution parameters for the survey were set as to only allow access to participants whose MTurk user profile matched inclusion criteria of identifying as a male and being at
least 18 years of age. Participants recruited through MTurk were provided $1.50 reimbursement for their participation regardless of the amount of the survey completed. In addition, all respondents were given the option of including contact information to be included in the cash drawing upon study completion. A total of 172 participants indicated that they identified as adult Latinos by clicking “Agree” on the informed consent document and completing at least some of the survey materials.

**Missing data and extreme outliers.** Two inclusion criteria were implemented in addressing missing data and extreme outliers. First, only cases with complete responses were included in the final data set. A forced response structure was implemented for items measuring the dependent and independent variables, thereby minimizing missing data for these variables. The categorical nature of demographic variables precludes options such as mean replacement as a method of addressing missing data. A total of 14 cases were excluded from analysis for this reason. Second, a cutoff of 4 minutes was implemented as a minimum duration for survey completion. A total of 10 cases were excluded from analysis for this reason. Due to the length of the survey as well as the potential for unpredicted interruptions during online completion of survey material a rough cutoff for a maximum duration was set at 80 minutes. A total of two cases were removed for this reason. In order to meet statistical assumptions necessary for regression, the data was examined for extreme outliers (± 3.0 standard deviations from mean) on all measures. A total of four cases were removed for this reason. After screening case data for the above-mentioned criteria, a total of 30 cases (17%) were removed. The final data set consisted 142 participants with slightly more surveys completed in English ($n = 75$) than in Spanish ($n = 65$).
Of the 142 participants who completed the survey, 48 reported their age. This subset of the sample had an age range of 22-59 with an average age of 35.49. Participants’ reported ethnic identity, native language, and previous experience with counseling were recorded as demographic variables. The predominately reported their ethnic identity to be Mexican American (22%) followed by Latino (18%) and Hispanic (13%). The majority of participants reported Spanish (57%) to be their native language. In addition, participants were asked whether or not they had previously engaged in counseling, to which a majority of participants (55%) indicated they had not.

**Examination of Assumptions**

Prior to conducting the primary analysis several preliminary analyses were conducted confirming that relevant statistical assumptions for performing a regression analysis had been met. To confirm the assumption regarding the normal distribution of residuals a visual inspection of the residuals scatterplot was conducted as well as examination of the skew and kurtosis of responses to each measure. Examination of the residuals scatterplot appeared randomly scattered with no discernable pattern providing no evidence for non-normal distribution of residuals. Komolgorov-Smirnov measures of skewness and kurtosis were then examined revealing all measures fell between -1.0 and 1.0 (see Table 1) as suggested by Huck (2012). The scatterplot of standardized residuals was examined to confirm the homoscedasticity of error estimates as well as that a linear relationship exists between independent and dependent variables. Examination of the scatterplot revealed a random scatter of points indicating that these assumptions had been satisfied. Cronbach’s alpha internal consistency reliability estimates were evaluated using items from the English and Spanish versions of each measure independently as well as
combined. Cronbach’s alpha estimates for all measures were found to be greater than the cutoff of .70 ranging from .73-.96 across English and Spanish versions.

The statistical assumptions regarding multicollinearity were examined by visual inspection of the variable correlation matrix (see Table 2) as well as review of collinearity statistics tolerance and variation inflation factor (VIF). Examination of the variable correlation matrix revealed significant relationships between intention to seek mental health services (ISCI) and attitudes toward seeking out these services (IASMHS; \( r = .178, p < .05 \)) as well as current endorsement of emotional distress (DASS-21; \( r = .208, p < .05 \)). A significant correlation was found between ratings of enculturation (MOS) and intention to seek counseling (ISCI; \( r = .213, p < .05 \)). The independent variables (TM & C) were not found to be significantly correlated with the dependent variable of intention to seek counseling (ISCI). Independence of variables was examined using the guidelines put forth by Kline (2016) who suggested of bivariate correlations between variables >.9, VIF scores >10.0, and tolerance scores < .10 as evidence of extreme multicollinearity. No evidence of multicollinearity was found using these guidelines as bivariate correlations between all variables were ≤ .50, VIF scores ranged from 1.115-2.229 and tolerance scores ranged from .479-.969.
Table 1

*Descriptive Statistics for Key Study Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention to Seek Counseling Inventory (ISCI)</td>
<td>41.78</td>
<td>9.30</td>
<td>.269</td>
<td>-.102</td>
</tr>
<tr>
<td>Traditional Machismo Subscale (TM)</td>
<td>32.77</td>
<td>11.82</td>
<td>.274</td>
<td>-.376</td>
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<tr>
<td>Caballerismo Subscale (C)</td>
<td>59.15</td>
<td>7.49</td>
<td>-.999</td>
<td>.792</td>
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<tr>
<td>Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS)</td>
<td>55.88</td>
<td>10.63</td>
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<td>.444</td>
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<tr>
<td>Mexican Orientation Scale (MOS)</td>
<td>53.89</td>
<td>14.87</td>
<td>.204</td>
<td>-.742</td>
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<tr>
<td>American Orientation Scale (AOS)</td>
<td>47.63</td>
<td>8.28</td>
<td>-.479</td>
<td>.054</td>
</tr>
<tr>
<td>Depression Anxiety and Stress Scale 21 (DASS21)</td>
<td>26.718</td>
<td>25.48</td>
<td>.879</td>
<td>.435</td>
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*N = 142*
### Table 2

*Correlations Among Key Study Variables*

<table>
<thead>
<tr>
<th></th>
<th>ISCI</th>
<th>TM</th>
<th>C</th>
<th>IASMHS</th>
<th>MOS</th>
<th>AOS</th>
<th>DASS21</th>
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<tr>
<td>Traditional Machismo Subscale (TM)</td>
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<tr>
<td>Caballerismo Subscale (C)</td>
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<td>.073</td>
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<tr>
<td>Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS)</td>
<td>.178*</td>
<td>-.419**</td>
<td>.181*</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexican Orientation Scale (MOS)</td>
<td>.213*</td>
<td>.214*</td>
<td>.115</td>
<td>-.055</td>
<td>1.000</td>
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<td></td>
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<tr>
<td>American Orientation Scale (AOS)</td>
<td>-.108</td>
<td>.047</td>
<td>.062</td>
<td>.019</td>
<td>.041</td>
<td>1.000</td>
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<td>Depression Anxiety and Stress Scale 21 (DASS21)</td>
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<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed).
Results of Regression Analysis

In order to respond to the research hypotheses a hierarchical multiple regression analysis was utilized. Intention to seek counseling (ISCI) served as the criterion variable in the regression analysis. In an effort to explain the degree to which traditional machismo and caballerismo predicted intentions to seek counseling (ISCI), individual variable contributions to the model were examined.

Step One. In the first step of the regression the demographic variables were added to the model. The model at step one was found to be significant and explained a substantial amount of the variance in ISCI, $R^2 = .214$, adjusted $R^2 = .113$, $F(16,125) = 2.125$, $p < .05$. Three variables were found to be significant predictors of ISCI at this step. Previous Therapy, $B = .192$, $t(16,125) = 2.312$, $p < .05$; Mexican ethnicity, $B = .403$, $t(16,125) = 4.104$, $p < .05$; and Puerto Rican ethnicity, $B = .193$, $t(16,125) = 2.276$, $p < .05$, were found rated their intention to seek counseling higher when accounting for all other variables in the model. Results of the significant relationships on the coefficients table for this regression model at step 2 describe how previous therapy experience, Mexican ethnic identity and Puerto Rican ethnic identity relate to intention to seek out counseling services. Those who reported previous therapy experience, Puerto Rican ethnic identity or an ethnic identity other than Mexican also rated their intention to seek counseling higher when accounting for all other variables in the model.

Step Two. In the second step of the regression the total score of the IASMHS, DASS, and ARSMA-II measures were added to the model with the demographic variables. The model at step two was found to be significant and explained a substantial amount of the variance in ISCI, $R^2 = .342$, adjusted $R^2 = .233$, $F(20,121) = 3.139$, $p =$
.011. Three ethnic identities found to be significant predictors of ISCI at this step. Mexican, \( B = .362, t(20,121) = 3.882, p < .001 \); South American, \( B = .226, t(20,121) = 1.796, p < .05 \); and Puerto Rican, \( B = .189, t(20,121) = 2.365, p < .05 \), ethnic identifiers were found to be significant predictors of ISCI. In addition, three other variables were also found to be significant predictors of ISCI at this step. The IASMHS, \( B = .313, t(20,121) = 3.826, p < .05 \); MOS, \( B = .236, t(20,121) = 2.102, p < .05 \); and DASS-21, \( B = .227, t(20,121) = 2.590, p < .05 \), were found to be a significant predictors of ISCI.

Results of the significant relationships on the coefficients table for this regression model at step 2 describe how current rating of psychological distress, attitudes toward seeking mental health services and enculturation relate to intention to seek out counseling services. Those who reported higher levels of current distress, enculturation, or more positive attitudes toward seeking mental health services also rated their intention to seek counseling higher when accounting for all other variables in the model.

**Response to Hypothesis 1a.** Review of results from this step of the regression confirm Hypothesis 1a as the attitudes toward seeking mental health services variable was found to account for a significant amount of variance in intention to seek counseling to be a significant predictor of ISCI.

**Step Three.** In order to assess if traditional machismo and caballerismo added to the prediction of ISCI above and beyond the control variables, TM and C scores were added as a variable in step 2. Results of the omnibus F test indicate that the model in step 2 did not explain a significantly greater amount of the variance (see Table 3) in ISCI, \( R^2 = .360 \), adjusted \( R^2 = .242 \), \( F(22,119) = 1.834, p = .ns \), than at step 2. This result indicates that neither endorsement of traditional machismo, \( B = .156, t(22,119) = 1.713, ns \), nor
caballerismo, $B = .028$, $t(22,119) = .339$, ns, accounted for a significant amount of variance in ISCI scores after accounting for the demographic and other control variables.

**Response to Hypotheses 1b and 1c.** Review of result from this step of the regression failed to confirm Hypothesis 1b as the traditional machismo variable was not found to be a significant predictor of intention to seek counseling ratings, $B = .156$, $t(22,119) = 1.713$, ns. In addition, results of this step of the regression failed to confirm Hypothesis 1c as caballerismo was not found to be a significant predictor of intention to seek counseling rating.

Overall, results of the primary analysis revealed a number of important findings. Support was provided for the inclusion of a measure of current psychological distress as this variable was found to be a significant predictor of intention to seek counseling ratings at step 2 and step 3 of the regression analysis. Consistent with previous research and in confirmation of Hypothesis 1a, attitudes toward seeking mental health was also found to be a significant predictor of intention to seek counseling rating. Hypotheses 1b and 1c were found to be incorrect as neither traditional machismo nor caballerismo were found to account for a significant amount of variance in intention ratings after accounting for demographic and control variables. Interestingly, several ethnic identifiers were found to be significant predictors of participants’ intention to seek counseling rating. Further exploration of study variables revealed a number of significant relationships.
Table 3

*Hierarchical Regression Analysis Summary*

<table>
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<th>Step</th>
<th>Predictor Variable</th>
<th>$B$</th>
<th>$SE_B$</th>
<th>$\beta$</th>
<th>$R^2$</th>
<th>$\Delta R^2$</th>
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<tr>
<td></td>
<td>Previous Therapy</td>
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<td>.113</td>
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<td>Puerto Rican Ethnicity</td>
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<td>.120</td>
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<td>2</td>
<td>Model</td>
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<td>.120</td>
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<td>Mexican Ethnicity</td>
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<td>South American Ethnicity</td>
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<td>3.184</td>
<td>.226</td>
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<td>.313</td>
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<td>Mexican Orientation Scale (MOS)</td>
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<td>.070</td>
<td>.236</td>
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<td>Depression Anxiety and Stress Scale 21 (DASS21)</td>
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<td>.032</td>
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Table 3 (continued)

<table>
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<th>Step</th>
<th>Predictor Variable</th>
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<th>$SE B$</th>
<th>$\beta$</th>
<th>$R^2$</th>
<th>$\Delta R^2$</th>
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<td>Puerto Rican Ethnicity</td>
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<td>.204</td>
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$N = 142$

* $p < .05$, *** $p < .001$
Traditional machismo and caballerismo were found to be significantly correlated with attitudes toward seeking mental health services as well ratings of current psychological distress. The following chapter will explore the potential implications of these study results for the field of Counseling Psychology as well as provide a discussion of the strengths and limitations of the current study and suggestions for future research.

Discussion

This study sought to address several limitations of prior research. In addition to utilizing a robust measure of enculturation and acculturation, it also incorporated measures of current psychological distress and previous counseling experience, as these variables have consistently been found to be related to intention to seek mental health services (Cepeda-Benito & Short, 1998; Cramer, 1999; Leech, 2007; Zuvekas & Fleishman, 2008). Due to the scarcity of related research and the irregular response pattern observed, findings from all of the variables included in the survey will be now be discussed.

Demographic Variables

Age. Participant’s age was not included as a variable in the regression analysis due to the limited number of responses to this question. Of the 142 participants, only 50 included a response to the question “How old are you?” It is likely that a majority of these missing responses were due to survey design. In the initial phase of data collection, the age variable was incorrectly coded in Qualtrics and not included in the distributed survey. Upon identifying the error, it was corrected, and a second phase of data collection was completed with the question included. Interestingly a small number of surveys completed in this 2nd phase were still missing responses to the age question. The use of
the MTurk program for distribution of the study survey allows for some assumptions regarding the age of participants to be made. While it is not conclusive, it is likely that all participants were at least 18 years old. In order to register as a user of the MTurk program, individuals must confirm that they are 18 or older (other assumptions provided by MTurk distribution are discussed below). Although the reason for this omission is unclear, it may reflect a general lack of comfort disclosing potentially identifying information. In reviewing cases with missing data, it was noticed that many cases that were missing a response to the age item also omitted a response to the following question regarding the number of years they have been in the United States.

Regardless of the reason for omission, the lack of clear data regarding the age of the sample for this study is a significant limitation. Several of the constructs utilized have noted statistically significant differences based on age. Intention to seek counseling as well as attitudes toward seeking counseling for example have shown to be rated higher as the age of the participant increases. The lack of inclusion of this variable in the primary analysis precludes any further comparison with previous research.

**Years in the United States.** Responses to the item inquiring as to how long the participant had lived in the United States was inconsistently responded to. Of the 142 survey responses, 32 selected the option “prefer not to say.” It was decided to include this option due to the forced response nature of the survey design in addition to any potential political or legal concerns this question may raise for participants. It is unclear as to the reason some participants chose not to disclose the number of years they have lived in the United States. It is possible the reluctance to disclose this information is again related to a
general lack of comfort disclosing potentially identifying information or related to potential concerns regarding the legality of residency.

A number of previous studies have included some form of inquiry regarding the length of time participants have lived in the United States, although many of these instances the response is used as a continuous measure of acculturation (Ramos, 2015). The current study utilized a more robust and strongly validated measure of acculturation that included an assessment of enculturation as well.

**Native language.** Inclusion of the participant’s native language in the demographics questionnaire was a unique aspect of the current study. As a function of MTurk the Spanish version of the survey was only distributed to users who identified Spanish as a language proficiency.

**Nation of origin.** Similar to other studies involving Latinos (Torres, 2014), participants were asked to report whether they were born in the United States, Mexico or “prefer not to say.” As with previously discussed demographic variables, it was determined that offering this 3rd option was optimal given the forced response design. A total of 13 participants selected the “prefer not to say” option and, therefore, were not included in the regression analysis. The nation of origin variable was not found to be a significant predictor of intention to seek counseling rating with this sample, $B = .184$, $t(22,119) = 1.254$, $p = \text{ns}$. It appears that those who reported being from the United States on average reported slightly higher ratings of intention to seek counseling ($M = 42.49$) than those born in Mexico ($M = 42.24$).

Related studies that have included nation of origin as a survey item (Kuo et al., 2015; Torres, 2014) typically included a significantly smaller proportion of foreign born
Latinos in their sample. The current study employed a relatively novel form of participant recruitment by utilizing the MTurk program. This method of survey distribution allowed for recruitment of a broader range of potential Latino participants found in the general population (18%) than is typically found on college campuses (8%).

**Ethnic identity.** Responses to ethnic identity with the current sample represented a wide range of Latino backgrounds. The majority of participants indicated their ethnic identity to be Mexican, Mexican American, Hispano or Latino (57%) while an unexpected number reported their identity was best described as a more general South American (13%). In addition to these groupings of reported ethnic backgrounds, the island born Latinos were also represented with a few participants identifying a Cuban (4%), Puerto Rican (3%) as well as Dominican (1%). In addition, four of these ethnic identities found to be significant predictors of ISCI in the last step of the regression. Mexican, $B = .354$, $t(22,119) = 3.807$, $p < .001$; Hispano, $B = .201$, $t(22,119) = 2.050$, $p < .05$; South American, $B = .238$, $t(22,119) = 2.085$, $p < .05$; and Puerto Rican, $B = .181$, $t(20,121) = 2.280$, $p < .05$, ethnic identifiers were found to be significant predictors of ISCI. Those who reported a Puerto Rican ethnic identity or an ethnic identity other than Mexican, Hispano or South American were likely to also rate their intention to seek counseling higher when accounting for all other variables in the model. This result highlights the importance of differentiating between the many ethnic sub-groups that comprise the Latino population.

**Previous therapy.** The current study made specific effort to assess for participants’ previous experience with mental health services with a single yes/no item. While this approach does not provide depth of information regarding participants’
perceptions of these experiences, it does allow for this difference to be accounted for statistically. Despite previous researchers providing evidence for the relationship between previous therapy and attitudes toward seeking therapy services (Cabassa, 2007; Shim et al., 2009; Vogel, Michaels, & Grass, 2009) this was not found with the current study sample \(r = .80, \text{ns}\). Additionally, previous therapy experience was not found to be a significant predictor in the final step of the regression model, \(B = .117, t(7,134) = 1.462, p = \text{ns}\). It is possible that these results may be in part due to unique characteristics of the current sample. The sample showed a significantly higher proportion of individuals who reported having previous counseling experience. Although the reason for this difference is not clear, there are a number of possibilities. Some of these possible participant factors could be that individuals who have had previous therapy experience may have been more interested in related research than individuals without this experience. Another possible reason is that the sampling method introduced recruitment bias, unintentionally sampling from a participant pool that is significantly more likely to have accessed mental health services. This possible sampling limitation is discussed further in the limitations section below.

**Attitudes related to seeking mental health services.** Similar to previous studies (e.g., Kuo et al., 2015; Torres, 2014) the attitude variable used in the current study was found to be a significant predictor of intention ratings, \(B = .361, t(22,119) = 4.084, p < .001\). This result indicates that among the current sample, those who reported more positive attitudes toward seeking mental health services were more likely to also report higher intention to seek those services should they be needed. In addition to confirming
this hypothesized relationship between attitudes and intention ratings, several other interesting relationships were also identified.

The attitudes variable as measured by the IASMHS total score was found to be significantly correlated with 4 other variables included in the study survey. A significant positive correlation was found between attitude and caballerismo scores \((r = .80, p < .05)\), indicating those who highly endorsed elements of this masculinity ideology also reported more positive attitudes toward seeking mental health services. This result is commensurate with previous findings indicating caballerismo endorsement to be related to more positive and prosocial attitudes (Torres et al., 2002.)

The two remaining significant relationships between attitude and endorsement of traditional machismo \((r = -.419, p < .001)\) as well as reported psychological distress \((r = -.268, p < .001)\) were both in the negative direction. These results suggest that among the current sample, those who highly endorsed a more traditional machismo masculinity ideology were likely to have less positive attitudes toward seeking mental health services. The negative relationship found between attitude scores and current psychological distress was unlike that found in previous studies (Kuo et al., 2015; Torres, 2014). This relationship suggests that among the current sample, those endorsing higher ratings of psychological distress were likely to report less positive attitudes toward services designed for aiding in the relief of that distress. Possible implications of these relationships are discussed further in the Implications section below.

**Psychological distress.** The inclusion of a measure to account for current psychological distress was an advancement of the current study design compared to previous studies where potential variance contributed by this variable were not accounted
Current psychological distress as measured by the DASS 21 total score was found to be a significant predictor of intention to seek counseling rating with the current sample, $B = .204$, $t(22,119) = 2.246$, $p < .05$. Exploration of the relationship between psychological distress and reported intention to seek mental health services revealed a significant and positive relationship ($r = .208$, $p < .05$) as found in previous research (Kuo et al., 2015; Torres, 2014). This result indicated that as participants endorsed higher ratings of psychological distress, they were more likely to also report higher intention to seek counseling services. This result provided support for the importance of including current perceptions of distress when attempting to account for differences in intention to seek mental health services. This echoes the suggestions of previous researchers who have identified this variable as intricately related to mental health help-seeking behaviors (Cepeda-Benito & Short, 1998; Cramer, 1999; Leech, 2007; Zuvekas & Fleishman, 2008). Providing further support for its inclusion, current psychological distress rating was also found to be significantly correlated with 3 other measures used in the study survey.

In addition to the significant and negative correlation with the attitude variable described above, current rating of psychological distress was found to have a significant negative relationship with endorsement of the caballerismo masculinity ideology ($r = -.247$, $p < .05$). The result indicates that for the current sample, those who reported higher endorsement of a caballerismo ideology were likely to endorse lower ratings of current psychological distress. Conversely, traditional machismo endorsement significantly higher levels of current psychological distress. This means that for the current sample, as endorsement of a traditional machismo ideology is associated with
greater psychological distress. Possible implications of these relationships are discussed further in the Implications section.

**Acculturation and enculturation.** The ARSMA-II was chosen to capture a measure of enculturation and acculturation. The ARSMA-II was determined to be a more effective approach than the single item approach used by other researchers (Ramos, 2015) due in-part to its overall depth and breadth. Although the original authors (Cuellar et al., 1995) intended for an overall acculturation score to be used, retaining a separate enculturation rating was found to be important in the current study.

Following the recommendations of other researchers (Jones & Mortimer, 2014), the current study retained independent scores from the MOS Mexican Orientation Scale as a measure of enculturation and scores from the AOS as a measure of acculturation. Although acculturation as measured by the AOS total score was not found to be a significant predictor of intention ratings, $B = .090, t(22,119) = -1.023, p = ns$, or significantly correlated with other study variables, this was not the case with MOS scores.

Enculturation as measured by MOS total score was not found to be a significant predictor of intention ratings, $B = .204, t(22.119) = 1.799, p = ns$. However, enculturation ratings of the current sample were found to be significantly correlated with endorsement of a traditional machismo masculinity ideology (TM; $r = .214, p < .001$) as well as intention to seek counseling ($r = .213, p < .001$). The relationship among these three variables was more complicated than anticipated. Although intention ratings were not found to be significantly correlated with traditional machismo ratings, both of these variables were significantly correlated with enculturation ratings. These results suggest
that participants who endorsed higher ratings of orientation with their Latino culture also reported higher ratings of intention to seek counseling as well as greater endorsement of a traditional machismo masculinity ideology. This finding was not consistent with prior research. Possible implications of these relationships are discussed further in the Implications section below.

**Experimental Variables**

**Traditional Machismo.** It was hypothesized that traditional machismo ratings of the current sample would account for a significant amount of variance in ratings of intention to seek counseling services. The current study failed to confirm this hypothesis as TM scores were not found to be a significant predictor of intention ratings, $B = .156$, $t(22,119) = 1.713$, $p = ns$.

Previous research involving the traditional machismo variable have suggested that it is associated with some attitudes that are antithetical to the therapy process (Urrabazo, 1985). The significant negative correlation between TM score and attitude toward seeking mental health services found in the current study provides further evidence of unhealthy associations with the traditional machismo masculinity ideology. Given the well-established relationship between attitudes related to a specific behavior and the eventual performance of that behavior, the inverse relationship between traditional machismo and intention to seek counseling found in the current study is particularly concerning. Compounding this dynamic is the positive correlation identified between traditional machismo and psychological distress. Consistent with these concerning relationships, the term Machismo has a generally negative connotation (Mirande, 1997; Torres et al., 2002; Urrabazo, 1985). In spite of this somewhat reductionist perspective it
appears Latinos relationship with this variable is more complex. In the current study for example, TM scores were negatively correlated with attitudes toward seeking mental health services but not with the intention to seek out these services. It appears that individuals in the current sample who reported high endorsement of traditional machismo may have held less positive attitudes toward seeking mental health services but these were not necessarily carried over to their reported intention to use these services. Addition research is need to further explore the impact of varying levels of endorsement of traditional machismo on the lived experiences of Latinos.

**Caballerismo.** The average caballerismo rating of the current sample ($M = 59.15$) were substantially higher than their average traditional machismo rating ($M = 32.77$). This result indicates that on average, participants in the current sample identified more with the positive characteristics of caballerismo than those associated with traditional machismo. Interestingly, caballerismo scores for the current sample were not significantly correlated with traditional machismo scores. This result indicates that, at least with the current sample, high endorsement of a caballerismo masculinity ideology did not necessarily mean they had low endorsement of a traditional machismo ideology. Results of the current study regarding the caballerismo variable were similar to previous researchers who reported finding associations between caballerismo endorsement and more positive attitudes toward mental health services as well as lower ratings of current psychological distress (Kuo et al., 2015).

**Implications for Counseling Psychology**

The current investigation provided valuable insight into the relationships some Latinos hold with variables thought to be related to their mental health help-seeking
decisions. The lack of a significant correlation between traditional machismo and caballerismo means that these ideologies may be perceived as somewhat mutually exclusive to some Latinos despite being described by some researchers as two ends of a unitary construct (Mirande, 1997). In this sense, an intervention designed to reinforce an aspect of a caballerismo ideology among a group of Latinos, may not have any impact on their endorsement of a traditional machismo ideology.

Counseling psychologists should be aware of the potentially unhealthy associations identified with traditional machismo (less positive attitudes to counseling and higher rating of current psychological distress). In addition, the inverse relationship between caballerismo endorsement and psychological distress is a dynamic that could be beneficial for interventions with clients (i.e., reframing exercises) as well perceptions of the services provided by our field (i.e., improved attitudes toward seeking mental health services). Although neither traditional machismo nor caballerismo were found to account for variance in intention ratings in the current study, both of these variables were significantly correlated with attitudes toward receiving these services.

The stigma associated with seeking mental health services is a complex concern highlighted by other researchers as negatively impacting a myriad of relevant factors such as; attitudes toward seeking these services (Shepherd & Rickard, 2012), openness to discussing mental health concerns (Komiya, Good, & Sherrod, 2000) and intention to seek out these services should the need arise (Vogel et al., 2009). Considering the significant relationship between these two Latino masculinity ideologies and attitudes toward seeking mental health services these constructs may provide an avenue through which these attitudes as well as the associated stigma are addressed.
The APA Working Group on Health Disparities in Boys and Men proposed several approaches that they believe should be taken to eliminate racial and ethnic health disparities including upstream (i.e., policy), midstream (i.e., program/practice), and downstream (i.e., individual) approaches” (APA, 2018).

One upstream approach that counseling psychologists can take is to join national programs focused on addressing these health disparities such as the APA Federal Action Network. As a member of the Federal Action Network psychologists can advocate on behalf of Latinos by supporting policy, funding, and research pertaining to reducing health disparities and increasing health equity in this population (APA, 2018).

The Health Equity Ambassador Program is an APA supported program that can help psychologists engage in successful midstream approaches. The Health Equity Ambassador Program provides psychologists with education, training, support and assistance with effective dissemination of health disparity information to individuals, families and the community. Counseling psychologists may utilize outreach programs such as these based in the community as well on college campuses to discuss beliefs related to more traditional machismo as well as caballerismo. Through these programs some of the more unhealthy beliefs related to traditional machismo can be challenged by reframing help-seeking as strength and a form of self-care. Utilizing characteristics of caballerismo, clinicians can frame mental health help-seeking as a courageous endeavor that is beneficial for the family and the individual.

Downstream approaches that counseling psychologists can take should start with their own education and self-reflection regarding the variables at hand. Psychologists can reflect on their own beliefs regarding traditional machismo as well as caballerismo. This
reflection should also consider what potential biases may accompany these beliefs and how they may impact the therapeutic dynamic with clients. Counseling psychologists should also consider their reactions to others who endorse some of the more polarizing beliefs associated with the traditional machismo masculinity ideology such as: Men are superior to women (Arciniega et al., 2008). Effectively challenging these beliefs in session may be difficult as they may overtly contradict the personal and professional beliefs of the clinician. A second downstream approach would be are to familiarize themselves with concepts such as “Familismo” (Alegria et al., 2008; Miville & Constantine, 2006), and “Marianismo” (Nuñez et al., 2016) as they are thought to be central to the caballerismo ideology. Clinicians working with Latinos should also familiarize themselves with the use of “Dichos” and “Consejos” (Comas-Díaz, 2006) as avenues of receiving support and discuss expectations regarding these concepts with their clients. In this way counseling psychologists can develop “Personalismo” (Santiago-Rivera, Arredondo, & Gallardo-Cooper, 2002) with the Latino community as well as demonstrate their commitment to providing culturally competent services. Although traditional machismo and caballerismo are masculinity ideologies typically associated with Latinos, it is likely that these concepts are more ubiquitous and experienced by individuals regardless of gender or ethnicity (Arciniega et al., 2008; Kuo et al., 2015). The relevance of these masculinity ideologies may need to be explored with our clients whether or not they identify as a member of the LatinX population.

**Limitations and Future Directions**

The current study implemented an ambitious bilingual design intended to expand the scope of previous investigations to include Latinos who prefer to, or only speak
Spanish by providing the option for participation in English or Spanish. Despite substantial effort in all stages of design and execution, there are several notable limitations to the generalizability of results. In the following sections potential limitations of the current study are discussed in regard to potential contribution of variance unaccounted for in the regression model. Methodological limitations are then presented with particular focus on the limitations of the sampling method employed as well as instrument choice. Lastly, suggestions for future research regarding Latino’s mental health help seeking are provided.

**Sample Limitations**

A primary limitation of the current study is the overall sample-size ($N = 142$) relative to the within-group complexity of those who identify with one of the many Latin demographic groups.

**Geographic differences.** The current sample included participants who reported ethnic background to be from five different specified countries, as well as a substantial number who chose a less specific regional reference (i.e., South American) that could be one of a number of different countries within those regions. The multitude of potentially influential differences that stem from these geographic differences alone warrant a more robust exploration of these groups and their relationship with mental health help seeking. The range of cultural variations within each of these geographically differentiated groups adds another layer of complexity that may be important to explore (Cuellar et al., 1995; Kuo et al., 2015; Ramos, 2015; Torres et al., 2002).

**Cultural differences.** Relevant cultural differences among Latinos may include complex factors such as level of acculturation and enculturation, or relatively simple
differences such as language preference. In addition to these geographic and cultural considerations, chronological differences (i.e., age and years in the United States) within each of these sub-groups makes generalizations regarding Latinos as a whole complicated. While the participant sample for the current study reflected a range of backgrounds, there were only a few cases representing each category (i.e., Dominican, \( n = 1 \)).

**Age differences.** A number of researchers have identified age as being related to an individual’s intention to seek counseling (Cabassa, Zayas, & Hansen, 2006), attitudes toward counseling (Berger et al., 2005; Jagdeo et al., 2009) as well as reported use of services nationwide (Alegria et al., 2008). In addition to the small sample size, the average age of the current sample was not included in the analysis as it was not consistently reported in the English or Spanish versions of the survey. The lack of data regarding participants’ ages in the current sample prevented the inclusion of this variable all subsequent analyses. Given the relationships identified in previous studies (Berger et al., 2005; Center for Disease Control Health Disparities & Inequalities Report [CDCHDIR], 2013; Mackenzie et al., 2006; National Institute of Mental Health [NIMH], 2015) it is likely that participants’ age may have been influential in differences in ratings of several variables relevant to the current study including the dependent variable.

Unique differences between participants related to the above described geographic, cultural, and chronological factors may have contributed some variance to differences in intention to seek counseling scores that was not accounted for in the regression model. Additional research is needed to more fully understand the
relationships among these variables for the many subgroups that comprise the Latino population.

**Methodological Limitations**

An unanticipated limitation of the current study was the method of participant recruitment and survey distribution. Due to a medical emergency, the intended recruitment of participants from campus and community organizations was disregarded. The recruitment of participants solely through digital means may have decreased how well the sample represents the intended population as a whole as recent research has reported Hispanic individuals to have among the lowest average internet use (Pew Research Center, 2016). Recruiting participants through the MTurk program resulted in some atypical sample characteristics in comparison to the general population. While it was possible to account for some of these differences such as age and previous therapy experience, others were more complex and can only be estimated as possible.

Psychological research tends to take place on college campuses where the student body provides a somewhat demographically predictable sample pool with college students typically being between 18 and 22 years old and about 15% or less reporting having received mental health services (Alegria et al., 2008). Previously referenced investigations regarding Latinos mental health help seeking (Kuo et al., 2015; Torres, 2014) did not record previous therapy experience, however, their reported samples had an average age of 22 and 24 respectively. Although age was only recorded for a small subset of the current sample ($n = 45$), these individuals were on average 35.49 years-old, a decade older than the samples of these previous studies. It is possible that this age difference could be manifested in a number of ways that influenced reported intention to
seek services including contextually different sources of psychological distress (Alegria et al., 2008) as well as perceptions of support (Constantine, Wilton, & Caldwell, 2003) and self-reliance (Fragoso & Kashubeck, 2000).

According to the NIMH (2015), approximately 7-9% of Latinos in the United States reported having received mental health services previously. The current sample of Latino’s consisted of a much higher proportion of individuals who reported previously receiving mental health services (46%). It is possible that this difference in the current sample may reflect other unique characteristics that made them more likely to have sought out and to have received mental health services than their peers in the general population, such as access to healthcare that included mental health benefits.

In addition to the limitations of the size and characteristics of the current sample, the online method of recruitment and participation further decrease how representative of the larger population the current sample may be. It is possible that these limitations were manifested in some of the unique characteristics identified in the current sample including a substantially higher proportions of the current sample reporting previous therapy experience.

**Limitations of measures.** In any investigation instrument choice is an important decision point and should be influenced by a number of factors such as previous research and evidence of strong psychometric properties (Tabachnick & Fidell, 2001). Conducting a bi-lingual investigation requires that these properties be considered for the original version of the instrument as well the translated version. Measures utilized for the current study were chosen with an overarching intention of maintaining consistency with
instrument choice of related research where possible and substitution with superior instruments where it was deemed necessary.

**Translations.** The first limitation of the measures included in the study survey relates to the limited number of psychometrically sound instruments used in previous studies that also have an existing Spanish translation. Providing equivalent Spanish and English versions of the study survey required original translations of some materials to be included. The informed consent document, debriefing statement, demographics questionnaire and the IASMHS all required original Spanish translations for the current study.

The dependent variable in the current study was measured by the most consistently used instrument in previous related studies, the ISCI (Cash et al., 1975). Despite several researchers providing evidence for the ISCI having strong psychometric properties with a Latino population, no such evidence was found with a Spanish translation of the ISCI. The bi-lingual design of the current study provided the opportunity to provide preliminary evidence of the psychometric properties of this Spanish translation with a sample of Latino adults. Due to the lack of previous translations of this instrument and potentially unique characteristics of the current sample, evidence of the psychometric properties of this Spanish translation should be interpreted with caution. Additional research is needed that includes this Spanish translation in order to evaluate its validity and reliability with individuals from the range of ethnic backgrounds that comprise the Latino group as a whole.

Previous studies of intention to seek mental health services have consistently included a measure intended to capture a rating of attitudes toward these services
(Cabassa, 2007; Shim et al., 2009; Vogel et al., 2009). Similar to the intention measure, the IASMHS also required original Spanish translation as no evidence of a Spanish version of the instrument was found at the time of this study. As with the ISCI, the psychometric properties found with the current sample should be interpreted with caution as they serve as preliminary evidence of the validity and reliability of this Spanish translation.

**Instrument Choice.** The use of the ARSMA-II as a bi-directional measure of acculturation was determined to be the most appropriate instrument due to its intended design as being bi-directional as well as the strong validity and reliability evidence for the English and Spanish versions of the measure. A significant limitation of the current study with regards to use of this measure is the length of the survey. The 30 item ARSMA-II was a substantial increase to overall survey length. The ARSMA-II contributed more items to the study survey than the dependent (17 items) or independent variables (10 items each).

**Suggestions for Future Research**

Although the current study intended to improve upon limitations identified in previous research, further exploration of Latino’s relationships with these variables is needed. However, the multitude of within-group differences among Latinos requires that future studies regarding Latino’s mental health help seeking increase the sophistication of the study design to accommodate this complexity. In addition to addressing the underrepresentation of Latino’s in psychological research, this increased sophistication can be achieved in-part through specificity of research questions, considerate instrument choice, and robust statistical analyses.
According to the American Psychological Association, Working Group on Stress and Health Disparities (2017), the underrepresentation of Latinos in psychological research is an obstacle to understanding the relationships among culturally relevant factors influencing the mental health concerns of this population. Addressing this obstacle will likely require psychologists to employ several approaches targeting different factors influencing this lack of representation. One indirect way that future research could employ is to increase the range of options provided in the demographics section of surveys. This change would allow for differentiation between the many subgroups that make up the Latino population as a whole. Another, more direct way that psychologists can address this under-representation in future research is through the sampling method used. Future research should take a multi-pronged approach to more effectively capture an accurate representation of the range of individuals that identify as Latino. In addition to the online recruitment of participants through MTurk or similar programs, it is critical that future researchers also access community agencies such as churches. This variety of recruiting avenues and locations provide the best opportunity to obtain a more representative sample of Latinos as well as minimize potential variance introduced by the sampling method.

The research questions used in future studies should be designed as to maximize the likelihood of identifying within group similarities, differences and/or effects on other variables. For example, “What relationships exist between participants reported ethnic identity and the dependent variable?” Research question wording can be optimized to more effectively capture the culturally relevant concepts at hand (Brislin, 1986; Kohn-Wood & Hooper, 2014). This approach will allow the breadth and depth of the variations
within the Latino population to be more clearly highlighted, and their relationships with study variables to be more clearly understood.

Future researchers may want to evaluate the potential benefit of using additional as well as alternative instruments to measure relevant variables. The survey for the current study was of considerable length consisting of 133 total items derived from five individual measures and the demographics questionnaire. In addition to the large number survey items, two of the measures used in the current study required original translations to be completed. Future research related to Latino’s mental health help-seeking may want to consider alternative instruments with fewer items to measure non-experimental variables such as enculturation and acculturation as well as psychological distress.

In regards to the enculturation and acculturation variables, authors of the ARSMA-II have reported finding some preliminary support for the psychometric properties of a shortened version of their instrument (Cuellar et al. 1995). However, at the time of the current study no other evidence of the validity and reliability of this 12-item version was found. Future research may consider replacing the ARSMA-II for the shortened version of this instrument.

With regard to the instrument used to measure attitudes toward seeking mental health services, the ASPPHS-SF (Fischer & Turner, 1970) may provide a viable alternative to the IASMHS. The 10 item ASPPHS has been found to hold strong psychometric properties with different samples of Latinos (Cabassa, 2007; Kuo et al., 2015; Torres, 2014).

Incorporating the two alternate measures described above would decrease the overall item number of the current study from 133 to 101. This change would allow
researchers to maintain the use of instruments with existing Spanish translations, as well as support for the psychometric properties of both versions (Kuo et al., 2015). In addition to the above-mentioned suggestions, future research should also evaluate what effect (if any) psychological distress has on reported endorsement of traditional machismo compared to caballerismo. Researchers should also evaluate what effect (if any) attending therapy has on endorsement of these Latino masculinity ideologies.

**Conclusions**

According to the APA Working Group on Health Disparities in Boys and Men (2018) psychologists should,

- Provide quality and culturally appropriate assessment of trauma exposure and mental health needs as well as mental health and addiction care to vulnerable boys and men, especially incarcerated men, men from rural and low-income settings, and racial/ethnic and sexual minority males. (p. 5)

As the U.S. population of Latinos/as continues to increase it is critical that psychologists continue to develop the understanding of the culturally specific factors relevant to their help-seeking decisions. More research is needed focusing on the complex relationships among Latino Masculinity ideologies and attitudes toward these services, as well as how this information can be used to help bridge the service-provider gap evident within the Latino community. Considering the role of mental health in overall wellness, the disparities in mental health services are a social justice concern that our field must continue to address.
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