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SELF-ESTEEM, SPIRITUALITY, AND ACCULTURATION AND THE
RELATIONSHIP WITH DEPRESSION IN LATINOS

A Dissertation

Presented to

the Faculty of the Morgridge College of Education

University of Denver

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

By

Fernando M. Avila

Advisor: Jesse N. Valdez, Ph.D.

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Abstract

The purpose of this dissertation is to examine the relationship between acculturation, self-esteem, spirituality and its association with depression in a community sample of Latinos. Previous research with Latinos has identified these factors as potentially being correlated with depression and with quality of life. The weight that these three variables can have on depression may be profound. Self-esteem and spirituality have been identified as protective factors that may assist individuals with depression by enhancing an individual's sense of worth. Acculturation is a construct that has been shown to influence Latinos in various ways. These variables have been established as predictors of happiness and psychological wellbeing (Hayes, Harris, & Carver, 2004). Acculturation in this study was measured by the Bidimensional Acculturation Scale for Hispanics (BAS; Marin & Gamba, 2003); Self-esteem by the Rosenberg Self-esteem Scale (RSES; Rosenberg, 1985); and spirituality by the Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS; Fetzer, 2003). The outcome variable, depression, was measured by the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977). The adult sample of participants for this study was solicited from the community and included one hundred and ten Latino participants from various ancestries of origin using an Internet survey tool. Hierarchical multiple regression was used to examine whether acculturation, self-esteem, and spirituality predicted depression in Latinos. Results showed that Latinos who endorsed lower levels

of self-esteem tended to endorse higher rates of depression. Further, Latinos who endorsed lower levels of spirituality, specifically in forgiveness for this sample, predicted higher levels of depression. Finally, lower socio-economic status was found to be associated with higher depression scores in this sample. The relationship between acculturation and depression was non-significant. The limitations of the study included sample size, education level of the participants, socio-economic status, and an online data collection method. Clinical implications to the study include adding to the understanding of factors that affect depression in Latinos and the importance of cultural competence when working with the Latino population.

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Table of Contents

Chapter One: Introduction	1
Chapter Two: Review of the Literature	8
Demographics of Latino Population	8
Depression	10
Acculturation	21
Self-Esteem	29
Latino Self-Esteem	33
Spirituality	37
Chapter Three: Method	50
Participants.....	50
Inclusionary Data	50
Procedure	51
Recruitment	51
Data Collection	52
Instruments	53
Data Analysis	60
Chapter Four: Results	63
Demographic Characteristics of Sample.....	63
Preliminary Analyses	67
Regression Analyses	82
Further Analyses	99
Chapter Five: Discussion	104
Overview and Discussion of Hypotheses	104
Implications	106
Limitations	110
Future Research	105
Conclusions	112
References.....	117
Appendices	
Appendix A University of Denver Protocol Approval	161
Appendix B Informed Consent	163
Appendix C Demographics Form	165
Appendix D Bicultural Acculturation Scale for Hispanics	168

Appendix E Rosenberg Self-Esteem Scale	169
Appendix F Brief Multidimensional Measure of Religiousness/Spirituality	170
Appendix G Center for Epidemiological Studies Depression Scale	176

List of Tables

Table 1: Distribution of the Demographics of Samples	65
Table 2: CES-D Scores by Latino Ethnicity	71
Table 3: Demographic correlates with CES-D	72
Table 4: Demographic correlates with Acculturation Subscales	76
Table 5: Demographic correlates with Acculturation Subscales (controlling for demographic variables)	77
Table 6: Demographic correlates with RSES	79
Table 7: Demographic correlates with Spirituality Subscales	81
Table 8: Acculturation Predicting Depression	86
Table 9: Self-Esteem Predicting Depression	90
Table 10: Spirituality predicting Depression	94
Table 11: Spirituality, Self-Esteem, and Acculturation Predicting Depression, controlling for SES	98
Table 12: Self-Esteem and Forgiveness Predicting Depression	103

List of Figures

Figure 1: Histogram of CES-D Scores	68
Figure 2: Q-Q Plot of CES-D Scores after outlier removal	69
Figure 3: Histogram of CES-D Scores after outlier removal	70
Figure 4: Scatterplot of residuals from predicting CES-D from Acculturation	83
Figure 5: Histogram of residuals from predicting CES-D from Acculturation	84
Figure 6: P-plot of residuals from predicting CES-D from Acculturation	85
Figure 7: Scatterplot of residuals from predicting CES-D from RSES	87
Figure 8: Histogram of residuals from predicting CES-D from RSES	88
Figure 9: P-p plot of residuals from predicting CES-D from RSES	89
Figure 10: Scatterplot of residuals from predicting CES-D from Spirituality subscales	91
Figure 11: Histogram of residuals from predicting CES-D from Spirituality subscales	92
Figure 12: P-p plot of residuals from predicting CES-D from Spirituality subscales	93
Figure 13: Histogram of residuals from predicting CES-D from RSES, Acculturation, and Spirituality (controlling for SES)	96
Figure 14 P-p plot of residuals from predicting CES-D from RSES, Acculturation, and Spirituality (controlling for SES)	97
Figure 15: Scatterplot of residuals from predicting CES-D from RSES and Forgiveness	100
Figure 16: Histogram of residuals from predicting CES-D from RSES and Forgiveness	101
Figure 17: P-p plot of residuals from predicting CES-D from RSES and Forgiveness	102

Chapter One: Introduction

Latinos are currently the largest minority-group and the fastest growing socio-demographic group in the United States (Gil, Wagner, & Vega, 2000). In 2000, the United States Census Bureau counted more than 35 million Latinos, consisting of 12.5% of the American population. Currently, Latinos are one of the highest risks for depression among multiple ethnic groups (Umana-Taylor & Updegraff, 2007). Although Latino immigration to the United States continues to increase and with it the Latino population rises, there is an apparent lack of research relating to depression for this group (Miranda, Azocar, Organista, Munoz, & Liberman, 1996). It is critical to understand the burden of mental illness on Latinos as they are less likely to receive appropriate treatment for depression and this continues to be a problem in for their mental health treatment in the United States (Simpson, Krishna, Kunik, & Ruiz, 2007).

Depression is the leading cause of disability worldwide and Latinos in the U.S. may be more at risk for depression due to a number of variables that can affect their mental health (Barrera, Torres, & Muñoz, 2007). There is evidence that the Latino population is at an increased risk for major depression and that the rate was significantly higher for U.S. born Latinos than those born in another country (González, Tarraf,

Whitfield, and Vega, 2010). Latinos are also overrepresented in depression prevalence and among low income and underserved U.S. groups (Department of Health and Human Services, 2005). Depression has been shown to be influenced by psychosocial stress and can be related to acculturation (Mendelson, Rehkopf, & Kubzansky, 2008). González, Tarraf, Whitfield, and Vega (2010) conducted a study and found that lifetime major depression is unusually high for U.S born Latinos. The prevalence of clinical depression may be high and disparities still exist in the treatment of depression for Latinos (Simpson, Krishna, Kunik, & Ruiz, 2007). Differences in mental health care for Latinos compared to Whites continue to be a problem recognized by mental health care providers (Cabassa, Zayas, & Hansen, 2006). Latino immigrants in the United States are less likely to receive mental health services than U.S. born Latinos (Hayman, Kurpius, Befort, Nicpon, Hull-Banks, Sollengerger, & Huser, 2007). Only about 15% of Latino immigrants with mental health needs receive services (Department of Health and Human Services, 2005). These differences cannot be readily explained based off of just lack of health insurance or language barriers (Hayman et al., 2007). Cultural and spiritual ideals concerning mental illness and stigma it encounters, plays into this lack of mental health access. More research needs to be conducted to determine why disparities in diagnosis of depression exist among ethnic/racial groups and to see how widespread they are.

The overall purpose of this study was to investigate Latinos psychosocial functioning (i.e. self-esteem and depression) from a culturally informed perspective (Coll, Lamberty, Jenkins, McAdoo, Crnic, Wasik, & García, 1998) by considering the roles of culturally important factors. Prior research on acculturation shows that native-

born Latinos may be at greater risk for depression than those who were born in a Latin-American country (Smokowski & Bacallao, 2006). Research into the area of depression with Latinos needs to consider many cultural, historical, and socio-economic factors that can affect depression in this group. Spirituality, self-esteem, and acculturation are some of these factors.

Purpose of the Study

This study aimed to examine acculturation, self-esteem, and spirituality – to predict depression in a Latino population. The American Psychological Association's (APA) guidelines for researchers working with ethnic and culturally diverse populations emphasize the need for further research with people of color. The APA's Board of Ethnic Minority Affairs (BEMA) established a task force in 1988 in response to the increased awareness about psychological service needs associated with ethnic and cultural diversity. One of the populations of concern were Latinos (Board of Ethnic Minority Affairs, 2012). This study hoped to increase awareness about depression in Latinos.

Acculturation

Acculturation is a macro-level process in which cultural change results from contact between two autonomous cultural groups. The non-dominant group is usually influenced to take on the norms, values, and behaviors espoused by the dominant group (Berry, 1998). Over the past four decades, researchers have suggested that the goal of assimilation for new immigrants may be problematic and have increasingly included examinations of enculturation or culture of origin affiliation, and bi-cultural identity

development instead of assimilation (de Anda, 1984). Acculturation many times can work as both a protective and risk factor for Latino mental health (Rogler, Cortes, & Malgady, 1991). The process of adapting to different cultures can be distressing for Latinos and may lead to psychological problems (Torres, 2010). Researchers have noted a link between acculturation and more social flexibility among Latinos (Portes & Zady, 2002). Bidimensional acculturation theories state that there is a possibility that this model provides a defensive buffer against variables like acculturative stress, substance abuse, and depression (Piko & Fitzpatrick, 2003). High self-esteem has been repeatedly identified as minimizing the effects of depression and may also assist Latinos in coping with the ramifications of acculturation (Masten & Coatsworth, 1998).

Self-Esteem

Researchers suggest that self-esteem serves as a protective factor by insulating people from stress that stems from negative life events, and specifically, against depression (Umana-Taylor & Updegraff, 2007). Cross-sectional studies have identified a negative relationship between self-esteem and depressive symptoms for Latinos and people from low socio-economic groups (Toth, Manly, & Cicchetti, 1992). Perceived discrimination has also been negatively associated with self-esteem among Latinos (Romero & Roberts, 2003). Self-esteem has also been correlated with high identification of ethnic identity in Latinos and other minority groups (Phinney, 2003). Ethnic identity helps to form a sense of self in multiple dimensions and achieve a secure identity (Markstrom-Adams, 1992). This secure identity can play a protective role for individual's self-esteem and in adolescents it helps to provide confidence and provides

defensive resiliency when encountering discrimination (Phinney, 2003). Group attributions may increase and serve as a mechanism with which to protect one's self-esteem in the face of discrimination (Crocker & Major, 1989). Existing empirical research shows a positive relationship between ethnic identity, self-esteem, and psychological well-being (Martinez & Dukes, 1997; Umana-Taylor, 2004). Given the positive relation between self-esteem and psychological well-being that has been documented in empirical research (Phinney, Cantu, & Curtz, 1997), the current study hypothesized that there is a relationship between self-esteem and the negative effects of depression for Latinos.

Spirituality

There is a large amount of research that has been done on the impact of spirituality and its effect on depression. This research supports the benefit of spirituality in decreasing the frequency and recurrence of depressive disorders (Miller, Warner, Wickramaratne, & Weissman, 1997). Research studies have suggested that there are benefits to spirituality by lessening depression (Blazer, 2012). Depression has been the most frequently studied of the psychiatric disorders in relation to spirituality and it appears that this variable does help people maintain their mental health (Koenig, McCullough, & Larson, 2001).

Spirituality is often perceived as being wider in scope than religion, and is often defined as a personal relationship with a higher power (Dalmida, 2006). Spirituality is said to be independent of religion because there are those who believe that one can be spiritual without belonging to any organized religion (Hodges, 2002). Some researchers

have pointed to specific features they think distinguish spirituality from religion, such as acts of compassion, altruism, an experience of inner peace, justice, a quest for meaning, and a sense of purpose (Blazer, 2012). Some studies have shown that a belief in a higher power, prayer, and having a relationship with a higher power contributes to lessening depression (Doolittle & Farrel, 2004). Higgins and Learn, (1999) found that patients who expressed anger at God or questioned God and church were found to be more distressed, confused, and depressed. Most studies of spirituality have focused on older adults (Koenig, Cohen, Blazer, Pieper, 1992). These studies show the impact that spirituality can have on one's life and how it may be a protective factor against depression.

Professional literature on Latino spirituality is not extensive. Comas-Diaz (2006) looked at the integration of spiritual concepts, psychotherapy, and Latinos. Some prominent themes in this work include contextual independence, magical realism, and healing through spiritual entities for developing a relevant theory of spirituality for Latinos (Cervantes, 2010). There is evidence that Latinos use religion and spirituality coping mechanisms more readily than non-Latinos (Adams, Kemp, & Takagi, 2002). Traditional (i.e. Catholicism) and non-Christian spiritual traditions (i.e. Santeria) have been noted as forms of mental health support systems in the Latino community (Delgado, 1982). Understanding the impact and providing culturally sensitive counseling for Latinos is one of the steps needed to provide multicultural competent services especially for depression (Sue & Sue, 1990). Understanding the relationship spirituality, self-esteem, and acculturation may have on Latino mental health (i.e. depression) should be considered an area of research that can be further explored.

Research Questions

The present study investigated if acculturation, self-esteem, and spirituality predict depression in Latinos.

The research questions were, “Are acculturation level, self-esteem level, and spirituality significant predictors of depression in Latinos?”

Hypotheses

The following operational hypothesis was proposed (H1, H2, H3) and controlled for socio-economic status (SES):

H₁ Null: Acculturation is a not significant predictor of depression in Latinos.

H₂ Null: Self-esteem is not a significant predictor of depression in Latinos.

H₃ Null: Spirituality is not a significant predictor of depression in Latinos.

H₁ Research: Acculturation is a significant predictor of depression in Latinos.

H₂ Research: Self-esteem is a significant predictor of depression in Latinos.

H₃ Research: Spirituality is a significant predictor of depression in Latinos.

Chapter Two: Review of the Literature

Purpose of Study

This study explored acculturation, self-esteem and spirituality and the connection with depression in a Latino population.

This chapter will explore the relevant literature concerning these variables of interest in this study. Specifically, the chapter is divided into four sections.

The first section presents relevant research concerning acculturation. This section presents literature looking at acculturation as a risk factor for depression as well as other relevant information.

The second section presents relevant research regarding self-esteem. Included in this section is the historical basis of self-esteem. The section also presents research looking at Latinos and prior research done with them on self-esteem.

The third section presents relevant research regarding spirituality. The section explores spirituality and religious participation and its effects on the Latino community.

The fourth section highlights relevant findings pertaining to the variable of depression in relation to Latinos.

Demographics of the Latino Population

The Latino population composes 48.4 million people in the United States, thereby making this population the nation's largest ethnic minority (Census Bureau, 2011). Both the terms Hispanic and Latino have been used interchangeably in the United States to identify people with Spanish, Indigenous, and African origins. The term "Hispanic" originated in the 1970's from the Federal Office of Management and Budget (OMB), and the United States Census Bureau (Office of Management and Budget, 1997). The term "Latino" translates as "Latin" in Spanish, which is probably a shortening of the word *Latino Americano* (Suárez-Orozco & Suárez-Orozco, 2010). These terms all reflect people that originate as "a person of Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin, regardless of race." (Office of Management and Budget, 1997). The terms used as descriptions many time depends on the part of the United States where that person is from as Hispanic is predominantly used in the Eastern United States and Latino in the Western United States (Office of Management and Budget, 1997). These terms can hold both positive and negative connotations and some people prefer to be called other labels, such as Mexican-Americans who prefer to be called "Chicano". People from Spain are usually considered European and not considered Latino or Hispanic since they lack indigenous origins from the North, Central, or Southern Americas or from the Caribbean (Suárez-Orozco, Todorova, & Louie, 2002; Jezzini, 2013).

Neither the terms "Hispanic" nor "Latino" refer to race, as a person of

Hispanic/Latino ethnicity can be of any race (Greico & Cassidy, 2001). A person who identifies as Latino can be of any race or combination of races including White, African-American, Asian, Native American, Native Hawaiian or any other combination (Greico & Cassidy, 2001). For the purposes of this study, the more appropriate term of “Latino” will be used since it is one of the labels that is used universally in the United States (Jezzini, 2013).

Depression

Depression is a serious mental health concern that will touch a person’s life at some point in their lifetime (Hunter, 2010). Ramifications of depression include a great burden on individuals, families, and society and lives lost to suicide. Improved recognition, treatment, and prevention are critical public health priorities. Leading mental health institutes like the National Institute of Mental Health (NIMH), conducts and supports research on the causes, diagnosis, prevention, and treatment of depression in the United States and recognizes the impact that depression has on many individuals (Hunter, 2010). In the past decade there has been a significant advance in our ability to further understand depression, which includes evidence from neuroscience, genetics, and clinical investigation. There are various symptoms and types of depression and for this study we will be investigating the impact major clinical depression has on Latinos (Miranda & Firpo-Jimenez, 2000).

Some symptoms of depression include a persistent sad mood, loss of interest or pleasure, significant changes in weight, difficulties with sleeping, agitation, fatigue, feelings of worthlessness, difficulty concentrating, and possible thoughts of suicide

(Hunter, 2010). A diagnosis of major depression includes at least five or more symptoms during the same two-week period and unipolar major depression presents with discrete episodes that occur during a person's life (Department of Health and Human Services, 2005). In contrast to normal emotional experiences depression is extreme and persistent and can interfere significantly with a person's ability to function. The high degree of variation among people with depression in terms of symptoms, course of illness, and response to treatment indicates that depression may have a number of complex and interacting causes (Hunter, 2010).

The prevalence of clinical depression in the U.S. population varies widely, from 5% to 20%, with most people receiving mental health treatment from their primary care providers (Simpson, Krishnan, Kunik, & Ruiz, 2007). Despite the availability of efficacy of diagnostic and treatment options, depression remains a frequently occurring and frequently undiagnosed mental health problem in the United States (Miranda & Firpo-Jimenez, 2000).

Research has shown that certain types of psychotherapy, particularly cognitive-behavioral therapy (CBT) and Interpersonal therapy (IPT) can help to relieve depression (Gonzalez, 2007). Anti-depressant medications have also shown to be effective in relieving depression. The combination of medications and psychotherapy has shown to be very effective for treating depression especially in adults (Simpson, Krishnan, Kunik, & Ruiz, 2007).

Psychosocial and environmental stressors are known risk factors for depression (Hunter, 2010). Genetic research indicates that environmental stressors interact with

depression vulnerability to increase the risk of developing depressive illness (Vega, Sribney, Aguilar-Gaxiola, & Kolody, 2004). National Institute of Mental Health (NIMH) research shows that depression often co-exists with anxiety disorders and that it's important that depression and each co-occurring illness be diagnosed and treated (Simpson et. al, 2007). Depression frequently co-occurs with a variety of other physical illnesses, including heart disease, stroke, cancer, and diabetes and can increase the risk for subsequent physical illness, disability, and premature death (Hodges, 2002). Depression in the context of physical illness is often unrecognized and untreated (Hunter, 2010). Previous research suggests that early diagnosis and treatment of depression in clients with other physical illnesses may help to improve overall health outcomes (Hodges, 2002).

Nearly twice as many women as men are affected by a depressive illness each year (Mendelson et al., 2008). Research from an NIMH supported study (Hunter, 2010) suggests that stressful life experience may play a larger role in provoking recurrent episodes of depression in women than in men. Research studies with children and adolescents have discovered that depression onset is occurring earlier in individuals born in more recent decades (Simpson et. al, 2007). Depression emerging in early life often persists and continues into adulthood (Hodges, 2002). Depression in children and adolescents is often associated with an increased risk of suicidal behaviors. Suicide is more common among the elderly than in any other age group and they have an increased risk of depression (Vega et al., 2004). This data shows the prevalence of depression in many different age groups.

Research on the causes, treatment, and prevention of all forms of depression will remain a high priority for the foreseeable future. Identifying distinct subtypes of depression characterized by various features including genetic risk, course of illness, and clinical symptoms are some areas that are being explored (Miranda, Estrada, & Firpo-Jimenez, 2000). Enhancing our understanding of clinical prediction of onset, recurrence, and co-occurring illnesses and identifying the influence of environmental stressors are some other areas of further exploration (Hunter, 2010). Since many adult mental disorders originate in childhood, studies of development over time that uncover complex interactions among psychological, social, and biological events are needed to track the persistence of disorders in childhood and adolescence (Miranda, Azocar, Organista, Muñoz, & Lieberman, 1997). Depression research on thought processes and identifying biological markers of depression are currently being investigated and can provide a further understanding of this phenomenon (Ojeda & McGuire, 2006).

Inequalities can manifest in delayed treatment and/or increased co-morbidity resulting in lost productive years for individuals belonging to ethnic minorities. There is data that is inconsistent regarding the actual rate of occurrences of depressive disorders and presentation of depressive symptoms in African Americans and Latinos compared to whites (Simpson, Krishnan, Kunik, & Ruiz, 2007). Inequalities in treatment and interventions are likely to have widespread ramifications. The literature contains information on health disparities in the area of depressive disorders. This systematic review of the literature examines evidence of racial/ethnic disparities in the diagnosis and treatment of depression.

In the coming decades, depression is projected to be the second leading cause of disability worldwide and the leading cause of disability in high income nations, like the United States (Mojtabai, 2007). In the U.S., depression is the leading cause of disability among major ethnic and racial groups (McKenna, Michaud, Murray, & Marks, 2005). Intra-ethnic differences among groups in depression have been hard to distinguish and there is a lack of research in this area (Jimenez, Alegria, Chen, Chan, & Laderman, 2010). Understanding difference among ethnic groups appears to be where the current literature is concentrated.

Recent studies in depression have reported differences among ethnic groups but there is a lack of comprehensive studies across these groups (Alegria, Takeuchi, Canino, Duan, Shrout, Meng, & Gong, 2004). There also appears to be a lack of studies with clients from a different country that only speak their native language (Jimenez et al., 2010). In some Latino samples some access barriers to treatment for depression have included lack of recognition of depression as an illness, not knowing where to go for care, and misconceptions about anti-depressants (Hodges, 2002). People with less knowledge about depression are less likely to want active depression treatment. Low rates of care in Latino communities may result in greater stigma associated with mental health care and few opportunities to find support and encouragement for entering depression treatment (Jimenez et. al, 2010).

Understanding the comprehensive mental health needs of Latinos is going to be an important facet of offering future multicultural mental health services in the United States. Latinos are predicted to comprise 25% of the predicted U.S. population by

2050 (U.S. Department of Health and Human Services). Improving current disparities in depression care will likely require addressing client and provider-level barriers in a variety of settings. Some of these interventions may include culturally appropriate patient education efforts to help effect knowledge, attitudes, and social norms and to empower Latinos as active participants in their care. Providers may need further training diagnosing depression among Latinos and providing appropriate culturally relevant depression care for them (Hodges, 2002). Latinos face economic and social barriers in the United States like being overrepresented among low income and underserved groups and low levels of higher education. These factors can contribute to the higher prevalence of depression in this population.

A recent meta-analysis (Lorant, Deliege, Eaton, Robert, Philippot, & Anseau, 2003) found that people who come from a lower socio-economic status compared with people from a high socio-economic background are more likely to become depressed and have more persistent depressive symptoms. It is a meta-analysis that espouses the idea that depression often develops in the context of psychosocial stress (Mendelson, Rehkopf, & Kubzanzksky, 2008). This stress can also be due to perceptions of relative inequality by individuals (Wilkinson, 1997). Racism can have negative effects on physical and psychological health (Clark, Anderson, Clark, & Williams, 1999). Current research on causal beliefs about depression for Latinos has focused on the influence of psychosocial stressors.

It has been shown that Latinos clearly understand and recognize symptoms of depression in others (Caplan et. al, 2011), but that they may not consider their own

somatic complaints and psychological stress as symptoms of depression but as stress. Depressed Latinos use mental health services less frequently than non-Latino whites (Ojeda & McGuire, 2006). They also have lower rates of anti-depressant medication adherence than non-Latino whites (Simpson, et al., 2007). Stress associated with the process acculturation is a common factor to consider for mental health with Latino immigrants (Sue & Chu, 2003). Cultural differences regarding the acceptability of expressing psychological distress may contribute to differences when it comes to reporting depression. Some research has suggested that the possible stigma associated with psychological illness in the Latino culture may result in Latinos being disinclined to communicate their mental health needs and may be more likely to report somatic problems (Hernandez & Sachs-Ericsson, 2006). Expressing physical pain may provide a culturally acceptable means to express emotional distress. There is growing evidence that suggests that somatic symptoms are common presenting features of depression throughout the world, and those from traditional cultures may not distinguish between the emotions of anxiety, irritability, and depression because they tend to express distress in somatic terms (Schmidt & Telch, 1997). These studies implicate the complicated manner in which Latinos are affected by depression.

There are cultural factors that do provide a sense of emotional resilience for Latinos. The Latino cultural value of familismo, which is the emphasis on strong family relationships, can foster social support, which helps to combat depression (Mendelson, Rehkopf, & Kubzansky, 2008). Acculturation, in particular bidimensional acculturation, is linked to resilience in Latino communities and that it may be a protective

factor as well. Latinos who are bicultural are likely to acquire the ability to maneuver competently within the dominant culture while maintaining a strong connection to the social, cultural, and linguistic culture of origin (Hull, Kilbourne, Reece, & Husaini, 2008). A study on prayer has also led credence to the importance spirituality may have on helping treat Latinos with depression (Given, Given, Stommel, & Azzouz, 1999). There seems to be several cultural factors that provide supports for Latinos to help them when dealing with depression.

Research on depression in Latinos is limited and the empirical findings have found a mixed result. There are some studies that have demonstrated higher levels of psychological distress for Latinos compared with non-Latino whites (Golding & Burnam, 1990; Plants & Sachs-Ericsson, 2004) while others have found lower levels of distress (Vernon & Roberts, 1982). Assessing prevalence rates of depression in Latinos is a useful step towards contextualizing risk and resilience for this group (Mendelson, Rehkopf, & Kubzanzksky, 2008). An important step in this process is also noting the differences between U.S. born Latinos and immigrant Latinos.

Recent research has suggested that exposure to U.S. culture may be detrimental to psychological well-being given that U.S. born Latinos have higher rates of psychiatric disorders, like major depression, when compared to immigrant Latinos (Grant, Stinson, Hasin, Dawson, Chou, & Anderson, 2004). This pattern has been termed the immigrant paradox, which suggests that for Latinos, more time spent in the United States is associated with mental health problems (Vega, Sribney, Aguilar-Gaxiola, & Kolody, 2004). Some evidence suggests that once Latinos move to the United States, their risk of

depression quickly increases and parallels that of their U.S. born counterparts of the same age (Alegria, Sribney, Woo, Torres, & Guarnaccia, 2007). It appears that foreign nativity protects against psychiatric disorders despite the stressful experiences and poverty often associated with immigration (Alegria, Canino, Shrout, Woo, & Naihu, 2008). These studies demonstrate the care that researchers have to take to distinguish depression rates among immigrant Latinos and U.S. born Latinos.

Although it is widely reported, there does seem to be some contradictory evidence regarding the generalizability of the immigrant paradox (Alegria et. al, 2008). Caution should be exercised in generalizing the immigrant paradox as it does not seem to apply to all Latino groups. It also appears that the immigrant paradox is the most protective when a person immigrates as an adult rather than as a child (Alegria et. al, 2007). The immigrant paradox also appears to show up most for substance disorders rather than mood disorders so caution has to be taken when applying this paradox to all Latinos (Vega et. al, 2004).

General coping or active problem-solving has been associated with lower levels of depressive symptomology among a Latino population (Ojeda & McGuire, 2006). Passivity, a lack of proactive behaviors, and emotion-focused coping styles were related to greater depression across ethnic groups, including Latinos (Stein & Nyamathi, 1999). Although poor access through lack of insurance has been one explanation for low rates of care, evidence suggests even among patients with insurance and a regular source of care, Latinos are less likely than whites to be given a diagnosis of depression and to receive depression care (31% for Latinos to 50% for Whites) (Lagomasino, Dwight-Johnson,

Miranda, Zhang, Liao, 2005). Latinos with depressive or anxiety disorders who have seen a health care provider are less likely than whites to receive treatment concordant with evidence based practice guidelines (Vega et al., 2004). Clinics that Latinos frequent may have fewer resources or programs that offer depression care or culturally relevant services. Due to the lack of depression treatment care for Latinos, they may have less knowledge and different attitudes about receiving care (Ruiz, 1993).

Relatively few studies have examined treatment for depression in Latinos (Iterian, Allen, Gara, & Escobar, 2008). This body of research provides some findings that recognize Cognitive-Behavioral Therapy (CBT) as a front-line treatment for depression among non-minorities (Department of Health and Human Services, 2003). Some evidence has indicated that Latinos prefer psychotherapy over pharmacotherapy (Alvidrez & Azocar, 1999).

Culturally sensitive mental health services have been researched and have been examined and the concept of what this looks like for Latinos can be broken down into several parts. There seems to be three broad approaches to this process. One approach is rendering traditional treatments more accessible to Latinos. Another is selecting an available therapeutic modality according to the perceived features of Latino culture. The third approach is extracting elements from Latino culture and using them to modify traditional treatments or as an innovative treatment tool (Rogler, Malgady, Constantino, & Blumenthal, 1991). The development of new therapeutic modalities out of specifically relevant cultural traits is always an ambitious and difficult task. A meta-analysis (Benish, Quintana, & Wampold, 2011) examined the efficacy of culturally adapted therapy and

provided evidence that culturally adapted psychotherapy produces superior outcomes for ethnic and racial minority clients. This meta-analysis is a good example for how important it is for Latinos to receive treatment for depression that is culturally adapted and that it has been proven to be better than traditional psychotherapy. More research on this area should be done so that more empirically supported interventions can be found for Latinos.

Numerous factors involving language could affect Latinos as patients even before their contact with the mental health system (Gomez, Ruiz, & Rumbaut, 1985). This has been well defined by Padilla (1980) who stated “concepts of depression vary among Latinos depending on whether English or Spanish is spoken”. It has also been noted that there has been differences between Spanish only speaking and English only speaking Latinos and how they view mental illness. Spanish only speaking Latinos more often believe that mental illness is inherited (Gomez, Ruiz, & Rumbaut, 1985). Expectations about not being understood by clinicians could make some Spanish speaking only Latinos more reluctant to utilize mental health services (Hodges, 2002). In general, it has been shown (Padilla, 1980) that therapist bilingualism is very helpful but that it does not necessarily ensure positive client attitudes towards seeking mental health care.

The results of the current literature review show that disparities exist in the diagnosis, services, and variables affecting depression in Latinos. The results of the review show that while there have been many gains in the treatment of depression over the past twenty years that Latinos have not had as much access to these services due to a variety of reasons. Since the etiologies of health disparities are multifactorial, the scope

of interventions needed to equalize treatments will likely require multisystem changes. Improving rates of care for all has to be vigilantly pursued at all levels of health care policy in order to affect change. Efforts to improve the treatment of depression in vulnerable populations not only improve the quality of life but also secondarily decrease some repercussions depression has on disability (Simpson et al., 2007).

Acculturation

Acculturation has been defined as the phenomenon that occurs when different cultural groups come into continuous contact with changes occurring in the original cultural patterns of either one or both groups (Torres, 2010). Although this definition has dynamic and multidimensional aspects, research studies typically use English language fluency or demographic categories, such as generation level or amount of time lived in the United States as indicators of acculturation (Lara, Gamboa, Kahramanian, Morales, & Bautista, 2005). Empirical studies of acculturation have commonly assessed language fluency, social affiliation, cultural knowledge, and/or daily living preferences (Lara et. al, 2005). Several acculturative models have looked at how to explain this phenomenon.

There are bidimensional models of acculturation, which believe that affinity towards the mainstream, or original culture occurs on different continuums (Berry, 2003). Their models are different in their approaches to acculturation. Some emphasize cultural contact, which is the preference of living within the mainstream society (in U.S., Anglo mainstream culture), and cultural continuity, which is maintaining one's cultural background (e.g. Latino culture) (Torres, 2010). These two distinct differences in acculturation are the issues, which are separate but related when it comes to acculturation

(Berry, 2006). These have to be noted when considering different models of acculturation.

Research that makes comparison between acculturation models shows that bidimensional theories are superior to unidimensional models (Ryder, Alden, & Palhus, 2000). It has also been suggested that an amalgamation of both cultural dimensions is associated with healthier psychological outcomes, which is also demonstrated by an emphasis on multicultural psychology (Torres, 2010). An emphasis on only one culture when dealing with acculturation that deals with assimilation or separation are usually associated with increased distress (Berry, Kim, Minde, & Mok, 1987). Problems with acculturation can include pressures of learning a new language, balancing differing cultural values, and having to adjust between American and Latino ways of daily living (Torres, Driscoll, & Voell, 2012). Findings from the National Latino and Asian American Society (NLAAS), showed that English language proficiency is associated with difficulties with acculturation (Lueck & Wilson, 2011). Amongst Latinos, daily discrimination and major racist events are associated as predictors of acculturative stress (Araujo-Dawson & Panchanadeswaran, 2010). Issues with acculturation can result in psychological health problems and Latino adults who experienced this were over two times more likely to show higher levels of depressive symptoms (Torres, 2010). Complications with acculturation have been linked to mental health problems in distinct samples of Latino college students (Crocket, Iturbide, Torres-Stone, McGinley, Raffaelli, & Carlo, 2007) and Mexican migrant workers (Hovey & Magana, 2002).

Numerous discrepancies have emerged in the literature regarding the interaction between acculturation and mental health. This is due to research methodology and samples examined (Lara et. al, 2005). Examining acculturation as a variable contributing to acculturative stress and the psychological health of Latinos can provide insight into how adaptation occurs (Torres, Driscoll, & Voell, 2012). Research has suggested that increased exposure to mainstream culture, along with changes in the U.S culture, is related to negative outcomes in Latinos (Grant et. al, 2004). The idea that an orientation to mainstream culture is a potential risk factor is contrary to early theoretical expectations regarding mental health and acculturation (Ryder et. al, 2000). As stated before, large scale studies of Latino depression have not examined a bidimensional conceptualization of acculturation (Berry, 2003).

Bidimensional acculturation models state that two distinct cultures exist and that the Anglo orientation emphasizes cultural contact and a preference for mainstream culture (Torres, 2010). A Latino orientation is referred to as enculturation, which involves cultural continuity and the maintenance of traditional culture (Berry, 2003). Having a high degree of both of these orientations has been associated with healthier outcomes (Kim & Omizo, 2006). Low outcomes are associated with low levels of these orientations (Berry, 2006). It has also been suggested that negative impacts of discrimination for Latinos may be different for individuals based on their acculturation orientation and the role this plays in contributing to mental health difficulties (Cook, Alegria, Lin, Guo, 2009). Discrimination is a factor that needs to be considered when looking at acculturation models.

Individuals who value mainstream Anglo culture as part of the acculturation process may be more prone to psychological problems when experiencing perceived discrimination than Latinos who have little desire to be part of conventional U.S. culture. This helps them to ignore or not be affected by negative interactions with standard American culture (Torres, Driscoll, & Voell, 2012). Protective factors of acculturation with perceived discrimination and acculturation problems are extremely understudied with Latinos. A high level of Anglo orientation can serve as a risk factor in relation to discrimination (Alamilla, Kim, & Lam, 2010). With increased English fluency, Latinos may be more likely to understand and interpret discriminatory actions (Pérez, Jennings, & Gover, 2008). Maintaining a Latino orientation can serve as a protective factor by giving Latinos access to traditional cultural resources (Torres, Driscoll, & Voell, 2012). Continued research into this area is needed to identify the relationship between Anglo and Latino behavioral orientations on perceived discrimination and acculturative stress and how Latinos cope with this phenomenon.

Coping has been defined as a multidimensional process used to manage experiences deemed to be taxing or problematic (Folkman & Moskowitz, 2004). The use of the coping method is determined by the skills used and how it matches with the particular stressor and the availability of resources (Lazarus, 1993). Coping effectiveness is based on the fit between the demand and degree of distress experienced (Torres, Driscoll, & Voell, 2012). Coping research has emphasized skills that allow people to move toward challenging goals rather than identifying mechanisms that are activated only as a reaction to events that are perceived as stressful (Aspinwall & Taylor, 1997). It

has been argued that active coping functions serve as a way to acclimate and deal with one's environment (Tyler, Labarta, & Otero, 1986). This understanding of coping addresses aspects of resiliency and competence that allow people to perform cultural tasks and manage negative life circumstances (Torres, Driscoll, & Voell, 2012). For Latinos coping can serve as a positive mediator with dealing with negative aspects of acculturation.

When considering cultural adaptations active coping skills that assist cultural transactions are thought to be a key piece to mental health (LaFromboise, Coleman, & Gerton, 1993). Recent research shows that active coping is associated with decreased depression among Latinos (Torres & Rollock, 2007). The context and type of stressors may influence the role of coping, which includes the level of stress that these skills are protective. There remains a lack of understanding in which active coping can help Latinos protect themselves from depression when accounting for acculturative stress and acculturation (Torres, 2010).

Despite the evidence that perceived discrimination and acculturation issues are important experiences in the daily lives of Latinos living in the United States, the research is limited as to how these variables are related to psychological distress (Araujo-Dawson & Panchanadeswaran, 2010). Researchers have previously included discriminatory experiences as an aspect of acculturation both in terms of theoretical conceptualization and assessment (Finch et al. 2001). Some findings have indicated that discrimination had a unique contribution to the depression of Mexican migrant farm workers in contrast to acculturative stress domains like language conflicts and legal

residence status (Alderete, Vega, Kolody, & Aguilar-Gaxiola, 1999). Other work has stated that perceived discrimination and issues with acculturation are separate but related processes (Araujo-Dawson & Panchanadeswaran, 2010). Some researchers state that discrimination is due to the person's ethnic or social position within the U.S. where acculturation is related to the adaptation process (Rodriguez, Myers, Mira, Flores, Garcia-Hernandez, 2002). There's research that states that discrimination is due to race or ethnicity which has been conceptualized as a sudden negative uncontrollable event (Carter, 2007), where acculturative stress has been described as problematic but controllable and individuals are able to overcome it (Berry, 2006). Considering perceived discrimination and acculturation as separate but related concepts provides a clearer description of the differential demands experienced by Latinos and the limits that blur the understanding of these variables (Torres, 2010).

An issue of note with regard to acculturation and mental health may be that increased acculturation allows for more ready discussion and recognition of mental health problems with treatment providers among immigrant Latinos (Campos, Podus, Anglin, & Warda, 2008). Chung et. al, (2003), found similar prevalence of psychiatric distress among low income Asian and Latino groups in primary care settings. Agreement between levels of psychiatric distress as measured by self-report and as diagnosed by primary care providers increased among Latinos as a function of increased acculturation (Campos et. al, 2008).

Many authors have hypothesized and tested links between acculturation levels and social adjustment, psychopathology, and substance abuse (Delgado, 1998; Gil, Vega, &

Dimas, 1994; Miranda, Estrada, & Firpo-Jimenez, 2000). In comparison to less acculturated peers, more acculturated Latinos display higher levels of alcohol use, less consumption of balanced healthy meals, and more consumption of drugs (Vega et. al, 1998). Vega, Zimmerman, Khoury, Gil, & Warheit, (1995), studied the link between acculturation and delinquent behavior and found a significant association between problems inherent in the acculturation process and lower self-esteem. In recent years, research has suggested that the goal of assimilation may be problematic and that both high and low levels of acculturation may produce undesirable results (Smokowski, Chapman, & Bacallao, 2007). This is something that needs to be considered when studying the acculturation.

A meta-analysis of 30 empirical studies examining Latino acculturation hypothesized three possible relationships between acculturation and mental health (Rogler et. al, 1991). One hypothesis is a negative relationship with poorer mental health due to stress from inadequate social networks and unfamiliar cultural dynamics for unacculturated individuals (Gamst, Dana, Meyers, Der-Karabetian, & Guarino, (2009). Another is a positive relationship with acculturated individuals yielding higher levels of mental health problems from internalization of racist cultural norms and stereotypes within the host society (Betancourt & Lopez, 1993). The third hypothesis is a curvilinear relationship with the two ends of the acculturation continuum correlating with poor mental health outcomes, and good mental health linked to an acculturation midpoint (Gamst et. al, 2009). About an equal amount of support for the positive and negative relationships has been acknowledged with little support for the third hypothesis.

Strong empirical support for the positive relationship hypothesis (Vega et. al, 1998) was provided by lower lifetime prevalence rates of unacculturated Latino immigrants as compared to acculturated Latinos Americans. These findings may provide evidence for Latino immigrants having mental health advantages over Latino Americans due to a “protective buffering” which affords better family life, lower divorce rates, more two parent families, and greater retention of traditional culture (Gamst et. al, 2009). In opposition of this, Cueller & Paniagua (2000) supported the negative relationship hypothesis where he felt that there’s evidence that less acculturated people had elevated scores on personality tests in the direction of greater psychopathology. More research needs to be done in this area to more fully understand it.

Although acculturation measurement originally focused on specific groups, a related body of research explored the ethnic identities of a number of diverse ethnic and racial groups (Phinney, 1996). Ethnic identity or one’s sense of belonging to a particular group was guided primarily by social identity theory (Erickson, 1968; Tajfel, 2010). The concept that people have as a member of a particular ethnic or racial group appears to be formed in early adolescence and continues to develop in adulthood. Ethnic identity is one component of one’s sense of self. It is the perception of how people think others view them as ethnic beings (Gamst, Dana, Der-Karabetian, Aragon, Arellano, & Kramer, 2002).

Ethnic identity, acculturation findings, relevant interventions, and associated mental health outcomes remain not only controversial but mixed with positive or negative relationships, as well as indications of curvilinear relationships between client

acculturation status and mental health outcomes (Gamst et. al, 2002). This study looked to see if a relationship exists between these variables for Latinos and acculturation.

Self-Esteem

The construct of self-esteem has numerous definitions. It has been described as an evaluation of one's self-worth and self-acceptance (Cheng & Furnham, 2004). One early definition of self-esteem viewed it as an evaluation that reflects a ratio of our pretensions divided by our successes (Guindon, 2002). It has been described as a "baseline" feeling of worth, value, liking, and accepting of self that one carries at all times regardless of objective reality (Guindon, 2002, p. 205). Rogers (1951) referred to self-esteem as the extent to which a person likes, values, and accepts himself or herself. White (1963) described self-esteem as a process developing from two sources, an internal source of a sense of accomplishment and an external source of affirmation from others. Maslow (1968) stated "Self-esteem is the desire for strength, for achievement, for adequacy, for mastery and competence, and for independence and freedom" (p.45). These definitions of self-esteem reflect some of the earliest and most widely used.

The National Association for Self-Esteem (2007), presents a practical definition of self-esteem as "the disposition to experience oneself as being competent to cope with the basic challenges of life and of being worthy of happiness (p. 1). Youngs (1991) described six portions of self-esteem as: 1) a sense of physical safety; 2) a sense of emotional security; 3) a sense of identity; 4) a sense of belonging; 5) a sense of competence; and 6) a sense of mission.

Rosenberg (1965) and Coppersmith (1967) each developed early versions of self-esteem as a personality construct based on observed data. Rosenberg (1965) defined self-esteem as a global view or attitude toward the self. He stated that attitudes about characteristics of the self are viewed by the individual in a calculated manner. Rosenberg (1979) believed that a person's self-value develops during early childhood and adolescence. Opinions from others, especially loved ones, carry weight in the way that one views personal self-esteem (Rosenberg, 1965). A person's accomplishments and qualities many times remain discrete from the sense of personal self-esteem.

The theory proposed by Coppersmith (1967) described self-esteem as being more complex and involving defensive reactions that interact directly with evaluation of the self. He felt that self-esteem consisted of two parts: subjective expression and behavioral manifestation. Coppersmith's (1981) definition included a decision on a positive or negative feeling of personal worth, a process which performance, capabilities, and attributes are examined according to personal standards and values that develop during childhood.

Rosenberg's (1965) and Coppersmith's (1967) theories were followed by others that expanded on them. Self-esteem or self-worth is based on values and norms of personal and interpersonal conduct (Guindon, 2002). This sense of worth can be affected by a sense of competence in many areas of a person's life (Gecas, 1982). A person may be strong in one area of competence and weak in another. The evaluative component of self-esteem has been proposed to be interrelated with both competence and worth. Individual's behavior is influenced by this complex system (Guindon, 2002).

Self-esteem is said to have a dual nature including both global and selective components. This relationship varies according to the elements that are of different importance to each individual (Butler & Constantine, 2005). Self-esteem seems to be a fluctuating self-attitude that is influenced by many variables and characteristics (Demo, 1985). A person's place in society can change according to these societal variables. The role one holds in society seems to be an important factor in the concept of individual self-esteem. Personal and situational experiences in these roles can vary depending on where a person chooses to focus (Rosenberg, 1985). This implies that while someone can have a positive sense of global self-esteem, certain situational experiences can lead a person to feel better or worse about themselves (Demo, 1985).

A person makes evaluations of many different qualities and aspects of one's self-esteem to form an overall view of self. Rosenberg (1965) described self-esteem as a combination of self-estimates that are affected by personal values. According to Coppersmith (1981), a person's general level of self-esteem is weighted by subjective importance and overall appraisal of self. Rosenberg (1979) stated that many personal elements are socially ranked and evaluated and that an individual's sense of personal worth is contingent on the perceived prestige of the identity element. Generalizations cannot be made from the specific to the global and this confusion may affect self-esteem interventions for people (Guindon, 2002).

There are many similarities that self-esteem shares with other constructs, which has led to confusion. Self-concept is one of these constructs. It is broadly defined as a person's perceptions of himself or herself that are formed through an individual's

experiences with the environment (Shavelson, Hubner, & Stanton, 1976). Self-esteem has also been confused with self-efficacy, which refers to a person's sense of effectiveness and competency (Gecas, 1989). Self-confidence is another term used interchangeably with self-esteem. It refers to the challenges one faces in life and in accomplishing goals (Rosenberg, 1979). These related constructs need to be understood so that self-esteem can remain distinctive and not confused from similar terms.

There are widely used and common elements of self-esteem. Competence and achievement seem to be important elements of self-esteem and are related to an awareness of self-worth (Guindon, 2002). Opinions of others are an integral component of self-esteem. What others think and state about others affects how people perceive themselves. Different definitions of self-esteem exist in the literature. Some common types are general self-esteem, global self-esteem, and selective self-esteem. General self-esteem refers to the evaluative component of the self (Gecas, 1989). Global self-esteem is an overall estimate of general self-worth. Selective self-esteem examines specific traits and qualities within the self (Guindon, 2002). Understanding these terms helps to understand the distinct elements of individual self-esteem.

Self-esteem has been widely researched because much of behavior is determined by how one measures self (Gecas, 1989). The way people choose to do an activity can depend upon a person's self-esteem (Guindon, 2002). Positive mental health and life satisfaction are correlated with high levels of self-esteem (Gurney, 1986). Self-esteem is a diagnostic criteria in some mental health categories and seems to be related to

depression and dysthymia (Guindon, 2002). Self-esteem is an important factor in the educational field as well.

Self-esteem and academic achievement have been studied extensively. Self-esteem has been shown to influence academic performance (Holly, 1987). This can be achieved by demonstrating observable measurable relationships between self-esteem and the behaviors commonly held to be related to it (Gurney, 1986). The study of self-esteem has proven to be evasive since its inception.

Self-esteem has consistently been found to have significant and lasting effects and is an essential construct of study (Swayze, 1980). Extensive research indicates that there are many issues surrounding the definition and measurement of self-esteem (Andrews, 1998). The study of self-esteem will continue to be researched extensively due to its importance in the field of psychology.

Latino Self-Esteem

The research conducted on self-esteem and Latinos has mostly dealt with the construct and how it relates to adolescent development. Much of this research has been in the context of school, family, and societal settings. Self-esteem has been widely accepted as an important variable of adolescent development and has been positively correlated with general well-being and negatively correlated with depression and hopelessness (Phinney, Cantu, & Kurtz, 1996). It was thought at one time, that lower socio-economic status or negative stereotypes would result in lower self-esteem for ethnic groups but this has been consistently refuted in the literature. The importance of group membership and the feelings one has towards their own group seems to be

important factors associated with self-esteem (Phinney, 1990). Research has shown that *familismo*, the Latino cultural emphasis of family life being at the center of a person's world is an important cultural variable that can affect internalized problems and levels of self-esteem (Smokowoski, Rose, & Bacallao, 2009).

The historical and cultural differences across American ethnic groups may affect the self-beliefs underlying self-esteem. Research on the role of group identity has focused mostly on ethnic identity (Phinney et al., 1996). Stronger ethnic identity has been suggested to be associated with higher levels of self-esteem for Latinos (Cislo, 2008). Social Identity theory suggests some thoughts about group distinctions in the relationship between ethnic identification and psychological well-being (Tajfel & Turner, 2010). Latino adolescents generally show self-esteem scores that are equal to others groups (Martinez & Dukes, 1991). It appears that that belonging to an ethnic group does not account for levels of self-esteem but the feelings and importance an individual has about their group are variables to be considered (Turner, Oakes, Haslam, & McGarty, 1994). A negative view about one's group may lower self-esteem while a positive view may raise self-esteem (Phinney, 1993). The view that a strong ethnic identity is correlated with self-esteem has been supported by a number of studies (Belgrave, Cherry, Cunningham, Walwyn, Latlaka-Rennert, & Phillips, 1994; Phinney, 1992; Phinney, Cantu, & Kurtz, 1996).

Socio-economic status may play a role in Latino self-esteem. Latino adolescents coming from a lower socio-economic group had lower levels of self-esteem than those who came from a higher socio-economic group (Fu, Hinkle, & Korslund, 1983).

Perceived discrimination may also play a role in Latinos sense of self-esteem (Armenta & Hunt, 2009). The Rejection-Identification model posits that attributions to discrimination by Latinos were associated with more negative psychological well-being (Armenta & Hunt, 2009). Research has shown a strong relationship between self-esteem and depressive symptomatology in Latino groups (Behnke, Plunkett, Sands, & Bamaca-Colbert, 2011). Family and relationships are important in the Latino culture and the development of these bonds may affect self-esteem and depressive symptoms (Smokowski & Bacallao, 2007). Parental support for Latino adolescents has been positively related to self-esteem (Behnke et. al., 2011). There are many differing ecological levels that can affect Latino self-esteem that need to be considered.

The idea of prejudice that Latinos face in modern society is a variable that may affect their self-esteem. It seems that there is research that contradicts each other in this area. Some researchers argue that minorities who are subjected to prejudice cannot help but internalize their social devaluation which results in lower self-esteem and more negative attitudes towards one's group (Major, Kaiser, O'Brien, & McCoy, 2007). Other researchers think that prejudice does not tend to lower self-esteem and that it can be a protective factor which enables individuals to attribute disadvantages to prejudice of others rather than to characteristics of themselves or their group (Major, Kaiser, & McCoy, 2003). Research shows that that the impact of perceived discrimination on self-esteem varies as a function of a person's belief about the way status differs in society (Major et. al, 2007). These beliefs can be influenced many ways and acculturation is a component that may play a part in shaping one's self-esteem.

Self-esteem has not been studied over a long period of time in conjunction with acculturation in the present literature (Sam, 2000). Previous studies do suggest that there is positive relationship between self-esteem and acculturation (Moyerman & Forman, 1992). Sam (2000) concluded that “devaluation of one’s own cultural heritage can be negatively related to self-esteem”. Latino self-esteem may be positively associated with assimilation into mainstream American culture (Valentine, 2012). Some studies report that highly acculturated Latinos report higher levels of self-esteem than those less acculturated (Guinn, Vincent, Wang, & Villas, 2011). There is a large degree of complexity that underscores the relationship between self-esteem and acculturation and more research needs to be done to understand this phenomenon.

Self-esteem plays a key role protective role in preventing depression (Behnke et al., 2011). Diminished self-esteem can lead to feelings of worthlessness, inadequacy, and hopelessness (Rosenberg, 1979). Self-esteem influences how one sees life events and everyday situations (Behnke et al., 2011). People with high self-esteem may be more optimistic and view life events as being more manageable (MacPhee & Andrews, 2006). Research has shown there to be a strong relationship between self-esteem and depressive symptoms in various Latino groups (Portes and Zady, 2002). Believing that higher levels of self-esteem for Latinos will assist them by having lower levels of depression seems to be a concept that can be supported by the literature.

A large number of Latinos fall under the federal poverty threshold and may suffer from problems dealing with poverty, violence, crime, and unemployment (Behnke et al., 2011). Some researchers believe that Latinos who suffer from these issues will have

lower levels of self-esteem and negative feelings of self-worth (Haney, 2007). Gender can also play a role amongst Latinos as research seems to indicate that males have higher levels of self-esteem when compared to females (Behnke et al., 2011). Research indicates that some Latino cultures put an emphasis on traditional gender roles for women and independent roles for men (Falicov, 1996). Studies examining gender differences that explore psychological risk factors have been more extensively researched with European American and African American populations than Latinos (Rudolph, 2002). Research does indicate that there is a link between self-esteem and depression amongst Latinos (Portes & Zady, 2002), but that more research is needed to understand this phenomenon. The research findings with self-esteem suggest that multiple factors of different ecological levels contribute to self-esteem and depression (Behnke et al., 2011).

Spirituality

Historically, most Americans have expressed a belief in God or having a sense of spirituality (Hayman, Kurpius, Befort, Nicpon, Hull-Blanks, Sollenberger, & Huser, 2007). These beliefs and how they affect people on a psychological level are still not completely understood. According to Thoreson (1998), the benefits spirituality has for many people covers a wide range of areas. There is evidence that spirituality is related to physical and psychological well-being (Pederson, 1998) but there has been difficulty in developing a universal definition of spirituality. This definition of spirituality has been difficult to define since many disparate religions have a different understanding of spirituality.

According to Ingersoll (1998), in order to have a better understanding of spirituality he surveyed religious leaders from different spiritual backgrounds (e.g. Catholicism, Protestant, Judaism, Muslim, Buddhist, Bahia) as well as professors of religious studies. He was able to come up with ten dimensions of spiritual well-being but not an operationalized definition of spirituality. Thoreson (1998) came up with a working definition of spirituality by looking at the Latin roots of the word and came up with the following description:

The need to transcend or rise above everyday material or sensory experience, one's relationship to God or some other higher universal power, force, or energy, the search for greater meaning, purpose, and direction in living, and healing by means of non-physical kinds of intervention (e.g. prayer, beliefs). (Thoreson, 1998, pp. 412-413)

This definition encompasses some of the major elements of spirituality but cannot be considered a universal understanding of the word.

For many years spirituality and religion have been identified in research as “religion” and the study of spirituality, separately from religion has a short history and is still both experienced and expressed by many people through conventional religious understanding (Cohen, Holley, Wengel, & Katzman, 2012). A recent definition used by Moberg (2008), which differentiates spirituality from religion describes spirituality as “ a more existential and experiential focus upon an individual's internalized faith, values, and beliefs along with their consequences in daily behavior”. Religiosity/ Religiousness was defined as “ membership and participation in the organizational structures, beliefs, rituals, and other activities related to a religious faith like Judaism, Hinduism, Islam, or

Christianity” (Cohen et. al., 2012). To conduct research in this area it is necessary to understand the difference between the two constructs even though they share many commonalities.

The word “spirit” derives from the Latin “spiritus” meaning breath which is a broad and ill-defined and thought to be broader in than religion (Cohen et. al., 2012). Spirituality is thought to have nine major components which includes: transcendent dimension, meaning and purpose in life, mission in life, sacredness in life, material values, altruism, idealism, awareness of the tragic, and fruits of spirituality (Moberg, 2008). Recently, Surbone (2011) reported five central features of spirituality: meaning of life, value and cherished beliefs, transcendence, connecting relationship with self and others and God, and the unfolding of life that demands reflection and experience.

The word religion is derived from the Latin “religare” which means “to bind together” which signifies between humanity and some greater power (Cohen et. al., 2012). Researchers have identified three designations of the term: a supernatural power to which individuals must respond, a feeling in individuals who conceive of such a power, and ritual acts carried out in respect to that power (Larson, Swyers, & McCullough, 1998).

Some previous research has defined spirituality in terms of religiosity because it may be easier to define organized religion, frequency of attendance, family of history, and satisfaction with certain religious beliefs into a study (Hodges, 2002). Spirituality, which appears more difficult to define, has received less attention than religiosity. For purposes of this study, spirituality and religiosity are described as separate, although they

may overlap. Spirituality appears to be a broader concept and represents transcendent beliefs and values that may or may not be related to religious organization (Hodges, 2002). There appears to be four distinct dimensions to spiritual well-being that emerges from a literature review: meaning in life, intrinsic values, transcendence, and spiritual community. They appear to represent important information regarding the relationship between spirituality and mental health (Ingersoll, 1994).

Religiosity and spirituality are related and overlap but is not the same (Cohen et. al., 2012). Religion/religiosity may be defined as a specific set of beliefs and practices, usually within an organized group and spirituality may be defined as an individual's sense of peace, purpose, and connection to others and beliefs about the meaning life (Cohen, et. al., 2012). People may think of themselves as spiritual, religious, or both (Larson et. al, 1998). Understanding the definitions of spirituality and religiousness, and the features that are common and different is important for the basis of any research (Cohen, et. al., 2012).

Frankl (1978) discussed the innate need of humans to find sentient meaning in their lives in order to live a healthy, well-adapted life. While a person may not be spiritual or religious, it has been recognized that spiritual development is a natural process in people's development (Erikson, 2011). Cousins (1979), was a physician who helped to verify the healing dimensions of spirituality and its importance to health development and in coping with a terminal illness. The impact of spiritual belief on mental health has been studied by Kelly (1994) who surveyed 343 graduate students in counseling programs who found that ninety percent of those surveyed rated spiritual beliefs as important in working

with others. Spirituality has been noted for the importance it has in some forms of therapy and research. Seligman (1990) has observed that spirituality made a difference in depression rates among the close-knit spiritual group of Amish in Pennsylvania, as incidents of depression among this community are lower than other parts of western society.

Major existential writers have touched upon the dimensions of meaning in life and purpose and meaningless in these areas resulting in depression (Frankl, 1959). Studies on meaningless and depression are some of the best documented among the literature (Beck, 1967; Frankl, 1959; Seligman, 1990). Other studies examining the relationship between church attendance and levels of depression, meaningfulness of religion, and depression of adolescents, found significantly lower depression rates among adolescents who found meaning in life through spirituality (Wright, Frost, & Wisecarver, 1993). These studies imply a negative relationship between discovering meaning in life and depression since depression is partially defined by hopelessness (Beck, 1967). The Beck Depression Inventory measures levels of depression and one of its most salient questions for predicting suicidality is related to the construct of hopelessness (Beck, 1967). This may imply that finding meaning in one's life may be a crucial component to life development and sustaining oneself in times of crisis (e.g. death of a loved one, divorce, unemployment) (Hodges, 2002).

Spiritual wellness is also composed of one's intrinsically held value system that shapes the basis for one's behavior. There are some studies on the relationship between intrinsic values, depression, and life satisfaction (Nelson, 1989). Watson, Hood, &

Morris (1988) found that ratings for life satisfaction were slightly higher for spiritual rather than non-spiritual participants. Depression levels were found to be lower among some people with an intrinsic value system (Bergin, 1991). There does seem to be a need for further research in this area to further understand it.

A third dimension of spiritual well-being is transcendence or “going beyond commonly understood boundaries” (Maslow, 1971). It is the focus of a connection with a higher power and the movement away from excessively focusing on the self or narcissism (Westgate, 1996). Scholars have extensively studied the rates of depression for the last fifty years and have found a consistent rise among clients who have characteristics of narcissism (Seligman, 1990). Seligman (1997) expressed the opinion that the significant rise in depression rates may stem from a sense of people feeling disconnected from significant human relationships. Herzbrun (1999) in a study found that one of the more defining issues regarding emotional adjustment was “purpose in life”. This research implies that religious faith is positively associated with emotional well-being. People with high levels of religious involvement report a greater degree of happiness (Myers, 1992).

Another dimension of spiritual health is a spiritual community of shared values and support (Maton, 1989). A spiritual or religious community may provide an important means of support (Hodges, 2002). Depressed or grieving individuals often report the loss of emotional attachments, which can lead to withdrawal from social contacts (Beck, 1967). Spiritual communities can provide a means of support for this. Wright et al. (1993) found in their study that regular attendance at religious ceremonies was

significantly correlated with lower levels of depression among adolescents. Spendlove, West, & Stanish (1984) found that participants with infrequent religious ceremony attendance were twice as likely to suffer from depression. These studies suggest that a link exists between religious attendance and depression, which suggests that involvement in a spiritual community, contributes to stable mental health (Hodges, 2002).

Overall, extensive studies have generally found that the presence of religious beliefs and attitudes to be good predictors of life satisfaction and well-being (Jones, 1993). Some exceptions may be that more fundamentalist religious outlooks may lead to a greater sense of isolation and depression (Hood, 1992). It should be understood that a spiritual community can facilitate a sense of life purpose and community or one of alienation and despair (Hodges, 2002). The image of emotionally healthy individuals that emerges from the literature is a person with an active spiritual life, who finds meaning and purpose in life, and who operates using the four major dimensions of spiritual well-being (Hodges, 2002). Studies have to be done to further understand the connections between spirituality and stable mental health.

Spiritual coping is widespread. In 2001, a study found that 90 percent of Americans turned to their spiritual beliefs to cope with the stress of the September 11th attacks (Koenig, 2010). This frequently happens in clinical settings with patients who suffer from medical problems. One survey found that 90 percent of Americans used spiritual beliefs and practices to cope with medical and psychological problems and that spiritual belief was an important factor in keeping them going (Koenig, 1998). A study of 406 patients with persistent mental illness found that more than 80 percent relied on

spiritual beliefs to cope (Tepper, 2001). When dealing with depression a group of inpatient clients with depression reported that the most common beneficial activity they engaged in was spiritual activity (Russinova, Wewiorski, & Cash, 2002). Another study found that 82 percent of psychiatric patients believed that their therapist should be aware of spiritual beliefs (D'Souza, 2002). This implies the importance spiritual coping has on Americans lives.

There are numerous quantitative studies that have examined the relationship between depression and spirituality, with the vast majority of studies finding significantly fewer depressive disorders or symptoms among those who scored higher on spirituality scales (Koenig, McCullough, & Larson, 2001) A meta-analytic study of 147 studies that involved almost 100,000 subjects (Smith, McCullough, & Poll, 2003) reported that there was a consistent inverse relationship between spirituality and depression. The effects for spirituality on depression appear to be especially strong in stressed populations, which include Latinos who deal with stressors like acculturation (Koenig, 2010).

Another study looked at 1000 consecutively admitted patients diagnosed with depression and compared them to a control group of non-depressed patients. They found that those with depression scored significantly lower on a number of measures of spirituality, including both spiritual beliefs and practices (Koenig, 2007). These differences remained significant even after controlling for demographic, social, and physical health factors (Koenig, 2010). One study examined 865 depressed patients for a period of 12 to 24 weeks. There was a statistically significant result which found that patients involved in spiritual beliefs and activities such as being active in the spiritual

community, reading spiritual materials, and praying recovered from depression over 50 percent faster than patient who were less spiritually involved (Toneatta & Nguyen, 2007). A study examining 104 elderly psychiatric inpatients found that spiritual coping during psychiatric hospitalization predicted lower levels of depressive symptoms six months later, which was a finding that lasted even after controlling for social support (Bosworth, Park, McQuiod, Hays, & Steffens, 2003). These studies show the impact spirituality has on people who suffer from depression.

Religion is a major part of Latino culture. Most Latinos pray daily and the concept of God is considered an active intimate presence in a person's life (Florez, Aguirre, Viladrich, Cespedes, DeLa Cruz, & Abraido-Lanza, 2009). There does seem to be very little research into the significance religious and cultural values have on fundamental beliefs and help seeking behaviors for Latinos (Gonzalez, 2007). Latinos traditionally have been closely linked to the spread of Catholicism during Spanish colonization (Caplan, Paris, Whittemore, Desai, Dixon, Alvidrez, Escobar, & Scahill, 2011). Fatalism is a belief amongst Latinos that illness and misfortune are beyond one's control and due to God's luck or destiny (Gonzalez, 2007). Fatalistic beliefs are considered a cultural barrier to accessing mental health services amongst Latinos (Caplan et. al, 2011). Fatalism may represent one aspect of negative religious coping which differs from more positive religious coping skills that provide support and a collaborative relationship with God (Paragement, Smith, Koenig, & Perez, 1998). The collaborative relationship that Latinos have with God may counteract the cultural belief of fatalism (Florez et. al, 2009).

Spirituality exists in many levels of Latino life and it transcends religious affiliation (Comas-Diaz, 2006). As a part of life, spirituality helps many Latinos to have a more profound sense of meaning and power and helps to deal with problems and issues in life (Munoz & Mendelson, 2005). Latinos learn spirituality through imitation, participation in rituals, and cultural influences, which include the use of language such as prayers and invocations to God, angels, and Saints (Comas-Diaz, 2006). Spirituality shapes how Latinos parent and socialize their children and by teaching children the value of generational wisdom (Cervantes & Ramirez, 1992). Latino spirituality can teach that life is full of blessings and that there is a strong sense of spiritual community (Comas-Diaz, 2006). Latino spirituality also has a sense of gender equality through the worship of Our Lady of Guadalupe, which provides a sense of hope, belonging, spiritual interconnectedness, and a reason to live (Rodriguez, 1996). Many Latinos believe that health is attained through the harmony of mind, body, and spirit. If this harmony is disrupted then an imbalance is created which is counterintuitive to the spiritual belief of healing for Latinos (Comas-Diaz, 1989). Spirituality as the basis of Latino healing is an amalgamation of Native American animism, African slave's mysticism, and European Christianity (Rodriguez, 1996). A disconnection from this in self, culture, and community results in illness and healing will occur when Latinos reconnect with who they are (Ruiz, 1997).

Latino culture is no longer solely associated with just Catholicism in the United States (Caplan et. al, 2011). Twenty-three percent of Latinos in the U.S. classify themselves as evangelical Protestants and 44% identify themselves as non-Catholics

(Kelly, 2007). Latinos have converted to Protestantism as a part of the renewalist movement and to have a more personal experience with God (Pew Hispanic Center & Pew Forum on Religious and Public Life, 2006). Renewalist Christianity is characterized by the belief that the Holy Spirit intervenes in one's daily affairs, by miraculous healings, prophecies, and speaking in tongues. Catholicism has not been uniformly adopted by all Latino cultures. There are religious practices that combine African, Haitian, and Catholic traditions like Santeria and Espiritismo. The impact that spirituality has on Latinos is an important component of the culture (Caplan et. al, 2011).

Espiritismo is practiced widely in the Puerto Rican and Cuban communities. Most espiritistas (mediums between worlds) are women and is also a form of psychotherapy that is consistent with the Puerto Rican concept of mental health (Baez & Hernandez, 2001). Padilla and Ruiz (1973) stated that most Latinos do not separate physical from psychological well-being. This implies that health is both emotional and physical states (Comas-Diaz, 1988). Espiritistas are trained to deal with cultural manifestations of stress and problems from anxiety and work with extended family in the healing process (Baez & Hernandez, 2001).

Santeria is a West-African (Yoruba) nature based religion that was brought to the Americas by enslaved Africans. Africans preserved, protected, and practiced this ancient religious tradition by masking African gods behind the images of Catholic saints. Each deity represents a different force of nature. Santeria means the way of the Saints (Bernal & Gutierrez, 1988). A santero/a priest also functions as a healer, diviner, and director of rituals. Santeros/a believe that diseases are due to natural and supernatural causes and

they assist with problems with legal, financial, emotional, health, and spiritual issues (Baez & Hernandez, 2001).

There is a large amount of evidence that suggests that spirituality may play a significant role in mental health outcomes related to Latinos (Applewhite, Biggs, & Herrera, 2009). Latinos are more likely than Caucasians to believe that prayer or faith in God can help relieve depression (Cabassa, Lester, & Zayas, 2007). Religious values may affect thoughts about mental illness and the recognition of illness (Caplan et. al, 2011). During Spanish colonization, indigenous religious beliefs intermingled with contemporary medicine, which emphasized the importance of keeping equilibrium in a person's body (Weller & Baer, 2001). There was the belief that disease could be caused by very strong emotions, severe weather conditions, or trauma from fright (Viladrich, 2007). Among sub segments of Latino ethnic groups' mental illness can be attributed to malevolent supernatural forces (Weiss, 1992). Chronic mental illness can be attributed to mal puesto, hechizos, and brujeria (spells, hexes, witchcraft), which are used as retaliation against others for social grievances (Falicov, 1996). Latino cultural values may also contribute to perceived stigma about depression.

Perceived stigma can be defined from an individual's point of view as feelings of shame or embarrassment about depression can also entail negative stereotyping of individuals with mental illness (Mickelson, 2001). There is research that contends that perceived stigma can contribute to medication non-compliance (Halter, 2004). Most recently, there has been a subtle shift toward having more positive attitudes about treating depression amongst Latinos (Mojtabai, 2007). Advertising and public health campaigns

may have helped to reduce stigma about depression in Latino communities (Halter, 2004). There is some conflicting research whether perceived stigma creates a barrier seeking help or mental health treatment among Latinos (Kanel, 2002). These conflicting research studies has made it difficult to substantiate the impact that stigma has on depression in Latinos.

There is still a challenge for counselors, educators, and clergy to understand the relationship between spirituality and depression among Latinos. To be able to work competently in this area will take further education, research, and multicultural competence in this area. The opportunity of assisting Latinos with depression will require the integration of their spirituality in a manner that is supportive, reaffirming, and part of their cultural worldview.

Chapter Three: Method

This chapter describes the methodology used to address the research questions in the present study. Descriptions of the participants, measures, and data analyses will be included. The purpose of this research was to explore acculturation, self-esteem, and spirituality to predict the level of depression in Latinos.

Participants

Participants were limited to adults 18 to 80 years old, those who self-identify as Latino of any ancestry – including Mexican, Cuban, Puerto Rican, Central or South American. Participants were solicited from any socioeconomic status, as well as those with the following levels of education: high school, college, graduate school and beyond.

Inclusionary criteria

The inclusionary criteria for participants accepted in the present study included:

- (1) males and females adults from ages 18 to 80, who self-identify ethnically as Latino;
- (2) participants included those whose ancestries are: Mexican, Cuban, Puerto Rican, Dominican Republic, and Central and South American, which include Costa Rican, Guatemalan, Honduran, Nicaraguan, Panamanian, Salvadoran, Argentinian, Bolivian, Chilean, Colombian, Ecaudorian, Paraguayan, Peruvian, Uruguayan, and Venezuelan;

(3) participants who reside in any geographic regions of the U.S.; (4) participants who must have at least high school reading level to complete all assessment measures; (5) participants willing to complete a one-time anonymous demographic questionnaire, and four additional measures.

Procedure

Prior to recruiting participants, the study was approved by the University of Denver Institutional Review Board (#514685-2) for the duration of 03/27/2014 to 03/26/2015 (Appendix A).

Recruitment

In order to collect data from Latinos from a wide variety of geographic regions across the U.S., data was collected online through a secured Internet survey tool (Survey Monkey) using enhanced SSL/HTTPS security. This data collection method was chosen, as this was an effective way to minimize missing data (Schlomer et al., 2010).

Participants were asked to input their responses to survey items on the web page and allowed to leave blank any questions they did not want to answer as they moved forward through the surveys. This sample utilized a non-clinical population in the general community and not a clinical population (e.g. from a community mental health center).

Recruitment emails were sent to the University of Denver and California State University, Los Angeles and online postings with links were created on Facebook.

Recruitment emails were also generated to various Latino community organizations comprising religious, political, and community associations from various states

(Colorado, California, Florida, Virginia). The study's Internet survey link was posted on

weekly intervals on the social media pages of these organizations to continue to generate interest for potential participants.

Data Collection

Participants who clicked on the Internet survey link were taken to the survey website, where they answered one pre-screen question to ensure they met the study's criteria. The question inquired about the participants' gender ethnicity. Participants who successfully met the study's criteria were taken to an the online informed consent (Appendix B) online, briefly detailing the study, the benefits and risks to participating in this study, as well as the contact information of this researcher. As the study was anonymous, participants who consented to participate in the study were asked to check a box at the bottom of the online consent form to indicate their consent. Participants who consented to participate in the study indicated their consent to participate. Participation was anonymous, and only this researcher had access to the account where the survey responses were stored.

Participants were then directed to the online version of the survey instruments – Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS; Fetzer, 2003); Rosenberg Self-esteem Scale (Rosenberg, 1989); Bidimensional Acculturation Scale for Hispanics (Marin & Gamba, 1996); the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977), and demographic form. All participants were informed that their participation was voluntary and that they were enrolled in a random drawing to win five \$20 electronic gift cards from Amazon at the end of the study – if they consented to participate in the drawing. Amazon is an American International electronic

commerce company. Participants who consented to be included in the random drawing had the option to click on another Internet survey link which would allow them to include their email address to be notified if they won one of the gift cards. The winners were selected using an Internet random number generator at the end of the duration of the study based on their participant number assigned by gift card internet link site. The winners were contacted via the email address provided, and the electronic gift card information was sent via the same emails. Data collection was terminated after two months.

Instruments

Independent variables.

Demographics.

The 34-item questionnaire was adapted from Rivera-Marano's (2000) demographic questionnaire. The information obtained from this questionnaire included socio-demographic variables such as age, marital status, education level, income, ancestry and generation of immigration (Appendix C).

Bidimensional Acculturation Scale for Hispanics (BAS; Marin & Gamba, 2003).

The BAS was developed by Marín and Gamba (2003) to measure bidirectional changes in behavior that occur during the process of acculturation. It was specifically designed to measure changes that occur along two cultural domains (Latino and non-Latino). For example, one item measures the individual's ability to speak Spanish (from very poorly to very well), and a second item measures the ability to speak English (from very poorly to very well) (Jezzini, 2013).

The initial version of the BAS consisted of 60 items, with 30 items for each cultural domain. A sample of 254 participants was recruited from the San Francisco, California area. The average age of participants was 37.3 years with an average of 10.4 years of education. The sample included individuals of both genders (53.9 % were female). The majority of the participants were born in Central America (52.8%) or Mexico (24.0%), and the average length of time living in the United States was 15.3 years for females and 16.6 years for males. The majority of the participants for the initial sample were born outside the United States (79.5%), with a large proportion having arrived five years prior to the survey (19.7%). The majority of the participants were born in Central American (52.8%) or in Mexico (24.0%), with an average length of residence in the United States of 15.9 years. Further, the majority of the participants were first-generation Latinos (79.9%). Second generation participants constituted 17.3% of the participants, and third generation or higher participants constituted 2.8%. The majority of the participants answered the initial version of the BAS in Spanish (74.0%) (Jezzini, 2013).

Factor analyses of the initial version of the BAS yielded four subscales: (a) Language Use, (b) Language Proficiency, (c) Electronic Media, and (d) Celebrations. All of the subscales possessed very high internal consistency – ranging from alpha = .97 for Linguistic Proficiency for Non-Hispanic Domain to alpha = .60 for the Celebrations subscale. The authors discarded the celebration subscale because it had the lowest validity coefficients. An example of an item from the Language Use subscale is, “How often do you think in Spanish?” From the Linguistic Proficiency subscale, a sample item

is, “How well do you understand music in English?” Finally a sample item from the Electronic Media subscale is, “How often do you listen to radio programs in Spanish?” (Jezzini, 2013).

The BAS has been shown to have high reliability and validity indexes among Mexican Americans and Central Americans. The combined score of the three language-related subscales showed the highest internal consistency for Mexican Americans (alpha = .93 for Hispanic domain and alpha = .97 for non-Hispanic domain) and for Central Americans (alpha = .87 for Hispanic domain and alpha = .95 for non-Hispanic domain). Validation was conducted by analyzing the correlation between the participants’ scores in the various scales with seven criteria: (a) generation status; (b) length of residence in the United States; (c) amount of formal education; (d) age of arrival in the United States; (e) proportion of participants’ life lived in the United States; (f) ethnic self-identification; and (g) correlation with the acculturation score obtained through a similar acculturation instrument (Short Acculturation Scale for Hispanics; Marin, Sabogal, Marin, & Otero-Sabogal, 1987). The authors reported that the validity coefficients for the BAS were higher than those reported in the literature for unidirectional or bidirectional scales (Marin & Gamba, 2003; Jezzini, 2013).

The BAS is included in Appendix D.

Rosenberg Self-esteem Scale (RSES; Rosenberg, 1989). The Rosenberg Self-Esteem Scale (RSES) is a 10 item Likert scale that was selected and used to measure the self-esteem of Latinos (Rosenberg, 1989). The Rosenberg Self-Esteem Scale may be the most widely-used self-esteem measure in social science research established through

numerous studies utilizing the instrument and has been found to have validity and reliability with a Cronbach's alpha for various samples scoring .86 (Blascovich & Tomaka, 1993). Rosenberg (1985) reported internal consistency reliability ranging from .85 to .89 for college samples. The test-retest correlations are typically in the range of .82 to .88 (Blasovich & Tomaka, 1993). Rosenberg (1985) reported a reproducibility coefficient of .92 and a scalability of .72 for the scale. Schmitt & Allik (2005) also reported that the RSES had good reliability and validity characteristics. The RSES is a Likert-type scale containing 10 statements that is a self-evaluation of individual self-esteem. Participants respond to the questionnaire items on a four-point scale (0= Strongly agree, 1= Agree, 2= Disagree, 3= Strongly disagree) from which a single score is derived. The score ranges from 0 to 30, with higher scores indicating higher levels of self-esteem. It is a paper and pencil measure of self-esteem.

Although measurement studies related to the RSES are few, the available studies have most prominently focused on its cross-cultural validity. The few available studies tend to suggest that (a) factor structures are relatively similar across cultures, but that bidimensionality in the RSES may be particularly pronounced for non-European American samples (Farruggia et. al, 2004; Schmitt & Allick, 2005); item loadings tend to be similar across cultural groups with the exception of the "I wish I had more respect for myself" item (Farruggia et. al, 2004; Schmitt & Allick, 2005, Greenberger et. al, 2003); and patterns of association between either unidimensional RSES factors or scales and bidimensional RSES factors may vary across groups in their associations with other indicators of development (Farruggia et. al, 2004).

The RSES is included in Appendix E.

Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS; Fetzer, 2003). The Brief Multidimensional Measure of Religiousness/Spirituality is a measure that has been used more frequently in religion, spirituality, and health research as it was developed to measure a range of distinct religious and spiritual domains (Johnstone, McMormack, Yoon, & Smith, 2012). The BMMRS assesses eleven distinct aspects of religiosity (e.g. religious support) and spirituality (e.g. daily spiritual experiences) and a scale that combines both dimensions (e.g. religious and spiritual coping). It uses a 38 item Likert scale self-report survey. It was designed by the Fetzer Institute and National Institute of Aging for use in health research (Fetzer, 2003). The BMMRS was developed to assess each individual construct separately, the subscales are scored independently, and no total sum score is made (Cotton, McGrady, & Rosenthal, 2010).

Some of the spirituality subscales assessed in this study included: The Daily Spiritual Experience is a six item subscale that measures the individual's connection with a higher power in daily life on a six point response format ranging from 1 (many times a day) to 6 (never) (Fetzer, 2003). The internal consistency reliability is .90 (Cronbach's alpha) (Cotton et. al. 2010). The Meaning subscale measures a sense of meaning in life and consists of 2 items with a 4 point response format ranging from 1 (strongly agree) to 4 (strongly disagree) with an internal consistency reliability of .66 (Cotton et. al., 2010). The Values/Beliefs subscale measures religious values and beliefs and consists of 2 items with a 4 point response format ranging from 1 (strongly agree) to 4 (strongly disagree) with an internal consistency reliability of .67 (Campbell, Yoon, & Johnstone, 2008). The

Forgiveness subscale measures the degree of forgiveness for one's self and others and a belief of forgiveness by a higher power (Fetzer, 2003). The subscale consists of 3 items with a 4 point response format, which ranges from 1 (always) to 4 (never) with a Cronbach's alpha of .78 (Cotton et. al, 2010). The Religious/Spiritual Coping subscale measures religious and spirituality coping strategies and consists of a 7 items with a 4 point response format ranging from 1 (a great deal) to 4 (not at all) with an internal consistency of .76 (Cotton, et. al., 2010).

Some of the religious practices subscales used in this study included: Private Religious practices subscale which measures frequency of religious behaviors and consists of 5 items with a 8 point response format ranging from 1 (more than once a day) to 5 (never) with an internal consistency reliability of .71 (Cotton et. al., 2010). The Organizational Religiousness subscale measures the frequency of involvement in formal public religious institutions, which consists of 2 items with a 6-point response format ranging from 1 (more than once a week) to 6 (never) with an internal consistency reliability of .72. Religious Support subscale measures the degree to which local congregations provide help, support, and comfort individuals composed of 4 items and a 4 point response format from 1 (very often) to 4 (never) with a Cronbach's alpha of .75 (Campbell, Yoon, & Johnstone, 2008).

For test-retest reliability for a study using the BMMRS (Harris, Sherritt, Holder, Kulig, Shrier, & Knight, 2007), all the subscales (except for Meaning and Belief) had an Intra-class Correlation coefficient (ICC) of $ICC \geq 0.70$. This same study also provided

initial evidence of construct validity and significant positive correlations with depressive symptoms between the BMMRS and the Beck Depression Inventory (BDI-II) (Harris et al., 2007)

The BMMRS is included in Appendix F.

Outcome variable.

Center for Epidemiological Studies Depression Scale (CES-D) (CES-D; Radloff, 1977). Depression was measured using the Center for Epidemiological Studies Depression Scale (CES-D) Scale. This is a 20-item scale that assesses the frequency of a respondent's depression-related feelings, behaviors, and mood during the past week. The instrument provides an index of cognitive, affective, and behavioral depressive features. Respondents rate the frequency with which these symptoms have occurred (ranging from 0 – Rarely or none of the time to 4 – Almost all the time). Higher scores indicate higher levels of depressive symptoms. Four items (good, hopeful, happy and enjoy) are inversely recoded. The 20 individual items were summed to create a depression scale (Jezzini, 2013).

The total score provides a measure of the client's level of depressive symptoms. A score of 16 or greater suggests high levels of depressive symptomatology and is about 1 standard deviation above the national mean (Sayetta & Johnson, 1980). In addition, Clarke et al. (1995) have shown that individuals with a score of 24 or greater, but who do not meet a current diagnosis of major depression, are at high risk for major depression or dysthymia within one year. The scale showed a good reliability for the general population of Cronbach's alpha = .87 (Jezzini, 2013).

The CES-D has been extensively used with the Latino population, including in the Hispanic Health and Nutrition Examination Survey (Moscicki, Rae, Regier, & Locke, 1987). The CES-D has been tested and shown to be reliable for Mexican–Americans (Moscicki et al. 1987). Cronbach’s alphas for our Latinos (.90) and Puerto Rican subsamples (.89) respectively (Moscicki et al. 1987; Jezzini, 2013).

Posner, Stewart, Marin, and Perez (2001) examined if the four-factor structure of the CES-D as described by Radloff (1977) – (1) depressive affect, (2) well-being, (3) somatic (4) interpersonal – adequately reflects the data from a sample of urban Latino men and women. Using a structural equation modeling approach, Posner et al. (2001) also included age and acculturation as covariates to explore their impact on the fit of the model to the data. Results of the study showed that for Latinas, but not for Latinos, CES-D scores do suit the four-factor model as described by Radloff (1977) with age and acculturation being statistically controlled (Posner et al., 2001). The authors also suggested that their results reflect cultural and gender differences in depression symptomology in Latinas and Latinos (Posner et al., 2001; Jezzini, 2013).

The CES-D is included in Appendix G.

Data Analysis

There were two stages of data analyses for this study. The first stage was where preliminary analyses were conducted. The data was examined for normality, linearity, and homoscedasticity. Potential outliers were identified using Boxplots. Potential skewness and/or kurtosis in the data were examined. This included both demographic information and descriptive statistics of participants. This information is shown with

graphs. Latino subgroups were examined via analyses to see if there were any significant differences.

The primary statistical analysis of the research questions were as follows:

Are acculturation, self-esteem, and spirituality statistically significant ($\alpha=.05$) predictors of depression in Latinos?

In order to determine the predictive relationship between depression as the dependent variable, with acculturation, self-esteem, and spirituality as the predictive independent variables, hierarchical multiple regression was used. It was used to discover the degree to which acculturation, self-esteem, and spirituality predict depression.

Regression Assumptions. To check if the data set met the assumptions necessary for multiple regression, regression assumptions were examined for violation in the data set.

Homoscedasticity. This was tested by plotting the standardized residuals on the y-axis against the standardized predicted y-values on the x-axis. A scatterplot was reviewed.

Normality. To test for normality, a visual examination of the histogram of standardized residuals was conducted to determine if it yielded a normal curve. Also, results of descriptive statistics of the unstandardized residual (skewness and kurtosis) were determined to see if it meets the cutoff of +/-1.0. Mean of the unstandardized residuals (error mean) was obtained to see if it meets the criterion of 0.0.

Multicollinearity. Standard errors were obtained to determine if they are unusually large. Bivariate correlations between independent variables were examined and

tolerance ($1-R^2$) and the variance inflation factor ($1/\text{Tolerance}$) were calculated for each of the independent variables.

Chapter Four: Results

This chapter is divided into four sections. The first section describes the demographic characteristics of the sample of participants. The second section describes the preliminary data analysis. The third section describes the results of the statistical analysis addressing the research hypotheses. The fourth section describes the results of further analyses.

Demographic Characteristics of Sample

A total of 178 respondents participated in the online study. Of these, only 122 respondents met the inclusionary criteria for the study. The rest of the participants were excluded because they identified as being non-Latino or did not consent to participate in the study. Of the 122 participants, 12 participants dropped out of the study after conducting only a portion of the surveys. A total of 110 respondents completed the survey data.

The majority of participants were female (64.55%), had received undergraduate education (52.73%), and were of middle socioeconomic status (74.55%). The average age of participants was 39.73 years ($SD = 12.27$), with a range of 22-69. Participants were largely 1st generation immigrants (48.18%) or 2nd generation immigrants (24.55%).

The majority of participants said English was their primary language (66.36%). Most participants were of South American ancestry (36.11%), Mexican ancestry (30.00%), or Central American ancestry (16.36%). The majority of participants were married (45.45%). See Table 1 for a breakdown of the demographic characteristics of the sample.

Table 1.
Distributions of Demographics of the Samples (N = 110).

Demographic Variable	N	Percentage
Sex		
Male	37	33.64%
Female	71	64.55%
Missing Data	2	1.82%
Ancestry of Origin of Participants		
Mexican	33	30.00%
Cuban	3	2.73%
Puerto Rican	7	6.36%
Dominican	4	3.64%
South American	39	36.11%
Central American	18	16.36%
Other	4	3.64%
Missing Data	2	1.82%
Marital Status		
Single	40	36.36%
Married	50	45.45%
Divorced	9	8.18%
Widowed	2	1.82%
Living with Domestic Partner	7	6.36%
Missing Data	2	1.82%
Educational level		
8 th grade and below	0	0.0%
9 th to 12 th grade	20	18.18%
Undergraduate College	58	52.73%
Graduate School	30	27.27%
Missing Data	2	1.82%
Socio-economic Status (SES, Self-identify)		
Low	18	16.36%
Middle	82	74.55%
High	8	7.27%
Missing Data	2	1.82%

Table 1 (continued)
 Distributions of Demographics of the Samples (N = 110).

Demographic Variable	N	Percentage
Generation of Immigration of Participants		
1 st	53	48.18%
2 nd	27	24.55%
3 rd	17	15.45%
4 th	11	10.00%
Missing Data	2	1.82%
Primary Language used		
English	73	66.36%
Spanish	35	31.82%
Missing Data	2	1.82%

Preliminary Analyses

CES-D. First, the dependent variable, CES-D was examined for a normal distribution (see Figure 1). The average score of the CES-D was 11.83 ($SD = 9.87$). Scores on the CES-D ranged from 0-44. Higher scores on the CES-D represent more depressive symptomology.

Two scores were identified as outliers (scores above 40) and were discarded from further analyses. With these outliers excluded, the average score on the CES-D was 11.54 ($SD = 9.41$). The scores ranged from 0-40. Skewness was .867 and kurtosis was 1.83. For both of these, scores close to 0 indicate normally distributed data. The CES-D scores are positively skewed, indicating that most participants are reporting not being depressed. Using a histogram as well as a normal probability plot (e.g., Normal Q-Q plot), CES-D scores appear rather normally distributed after removal of the outliers (see Figures 2 and 3).

CES-D scores were also examined by Latino subgroup. The Cuban subgroup had the lowest CES-D scores ($M = 2.33$, $SD = 4.04$). The South American subgroup had the highest CES-D scores ($M = 12.66$, $SD = 9.51$). However, there were no statistically significant differences between any subgroups in terms of their CES-D average score (all p 's $> .07$). See Table 2 for breakdown of CES-D by Latino subgroup.

CES-D scores did not correlate with age ($r = .02$, $p = .80$), gender ($r = .01$, $p = .90$), education level ($r = -.08$, $p = .38$), or generation of immigration ($r = .09$, $p = .32$). CES-D scores were positively correlated with SES, such that that low SES individuals

also have higher CES-D scores ($r = -.21, p = .03$). See Table 3 for demographic correlates with CES-D.

Figure 1.

Histogram of CES-D scores.

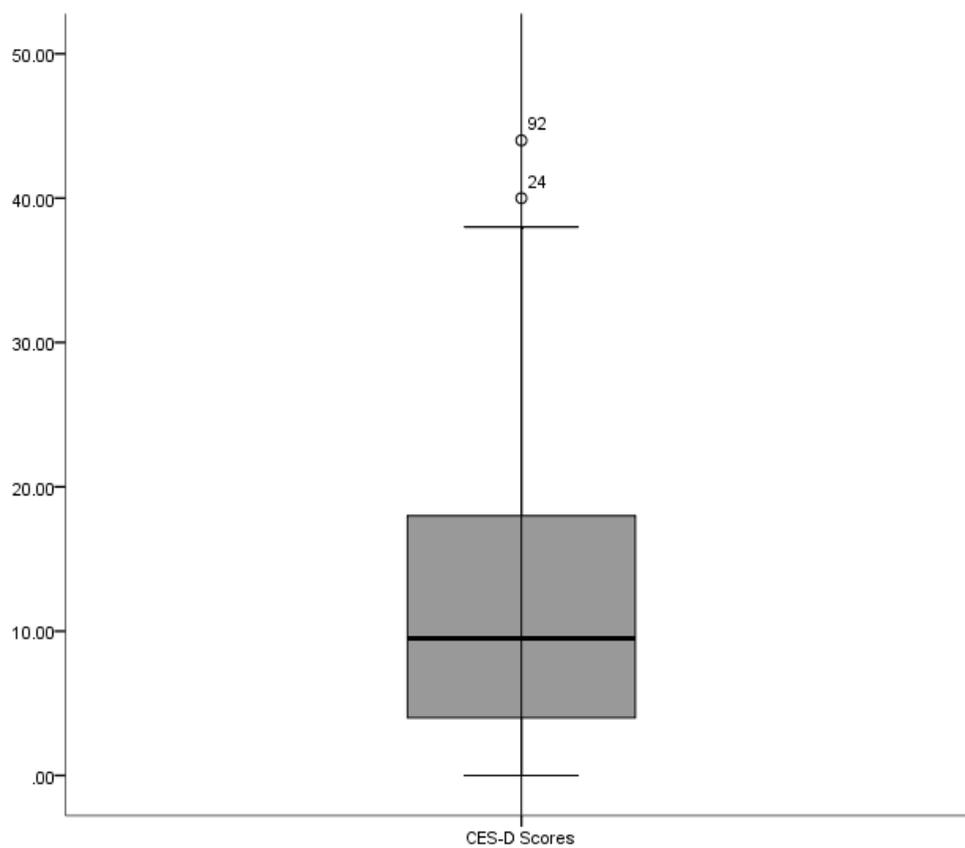


Figure 2.

Q-Q plot of CES-D scores after outlier removal.

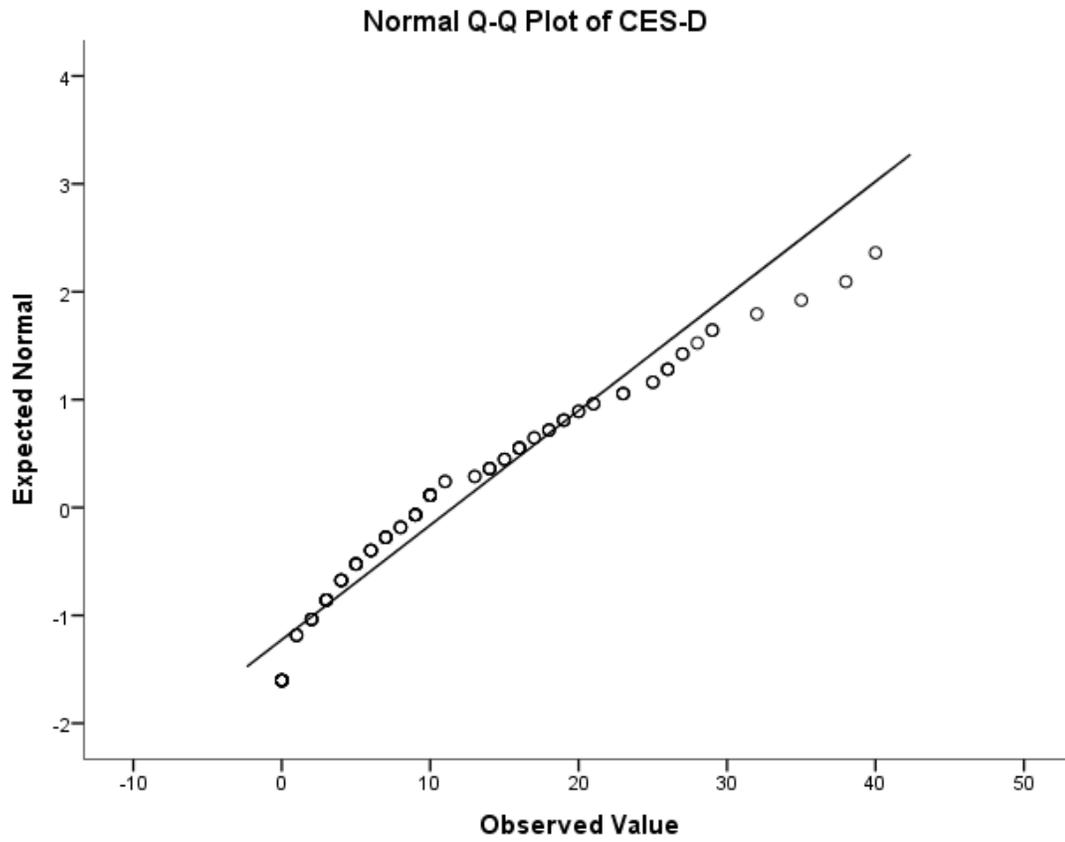


Figure 3.

Histogram of CES-D Scores after outlier removal.

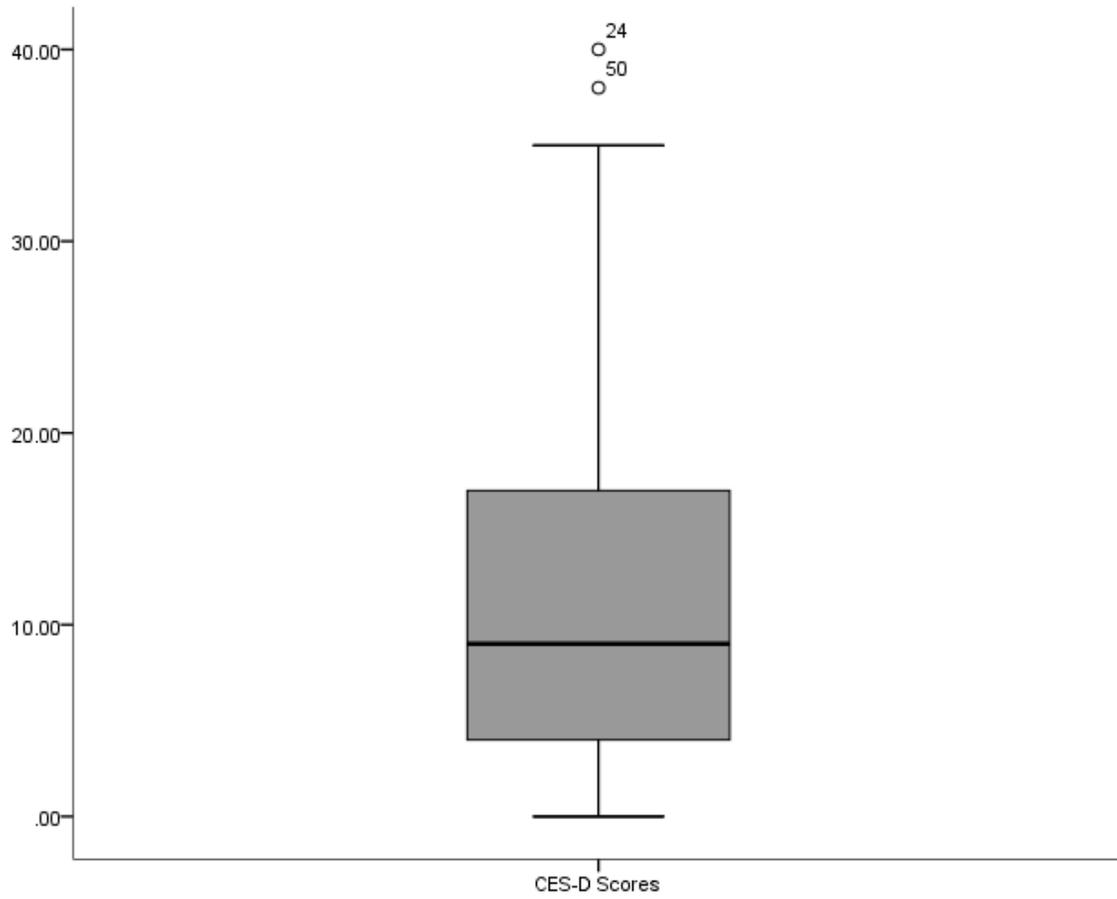


Table 2.

CES-D Scores by Latino ethnicity.

Latino Ethnicity (# of participants)	Mean	Standard Deviation
South American (n= 38)	12.66	9.51
Central American (n = 18)	9.00	10.32
Mexican (n = 33)	12.45	8.02
Cuban (n= 3)	2.33	4.04
Dominican (n = 4)	11.00	13.93
Puerto Rican (n = 7)	14.14	10.46
Other (n = 4)	12.50	11.56

Note. Scores ranged from 0-40, with higher score representing more depressive symptomology.

Table 3.

Demographic correlates with CES-D

Variable	1	2	3	4	5	6	7
1- CES-D Scores	--						
2- Age	.02	--					
3- Gender	.01	.22*	--				
4- Education Level	-.08	.07	-.09	--			
5- Socioeconomic Status	-.21*	.19*	.04	.26*	--		
6- Generation of Immigration	.09	-.06	.05	-.10	.14	--	
7- Primary Language	.05	.32*	.05	-.08	-.21*	-.29*	--

Note: * = $p < .05$; Gender is coded 1 = male, 2 = female; Language is coded 1 = English, 2 = Spanish.

Acculturation. The BAS provides scores on two subscales: the Non-Hispanic American Acculturation subscale score and the Hispanic Acculturation subscale score. Each subscale has a possible total of 4, with scores less than 2.5 representing low acculturation to that culture and scores higher than 2.5 representing high acculturation to that culture. The Non-Hispanic American Acculturation subscale scores ranged from 1-4 ($M = 3.46$, $SD = .67$). The Hispanic Acculturation subscale scores ranged from 1-4 ($M = 2.67$, $SD = .82$). Generally, participants were rating themselves as bicultural, above 2.5 on both scales.

Interestingly, age was positively correlated with the Hispanic Acculturation scale ($r = .35, p < .001$) but not related with Non-Hispanic American Acculturation scale ($r = -.12, p = .203$). Females had higher Non-Hispanic American Acculturation scale scores ($M = 3.58, SD = .48$) than males ($M = 3.21, SD = .90$), $t(108) = -2.77, p < .05$. Participants who marked English as their primary language had higher Non-Hispanic American Acculturation scale scores ($M = 3.77, SD = .25$) than those participants who marked Spanish as their primary language ($M = 2.79, SD = .78$), $t(108) = 9.75, p < .05$. Scores on the Non-Hispanic American Acculturation scale also increased by each generation removed from immigration: 1st generation ($M = 3.21, SD = .75$), 2nd generation ($M = 3.62, SD = .60$), 3rd generation ($M = 3.80, SD = .28$). Scores on the Non-Hispanic American Acculturation scale did not relate to socioeconomic status ($r = .10, p = .29$) or education ($r = -.05, p = .56$). Besides related to age, scores on the Hispanic Acculturation scale also correlated with speaking Spanish as a primary language ($r = .62, p < .001$) and negatively with generation of immigration ($r = -.51, p < .001$). Hispanic Acculturation scale scores did not relate to socioeconomic status ($r = -.11, p = .31$), education ($r = .06, p = .43$), or gender ($r = .04, p = .76$). See Table 4 for correlates of the Acculturation scales.

There were differences in scores between Latino ethnic subgroups as well. For the Non-Hispanic American Acculturation scale, the Central American ethnic subgroup had lower scores ($M = 3.37, SD = .59$) than the Mexican subgroup ($M = 3.71, SD = .36$), $p = .024$. The 'Other' group had the highest scores on the subscale ($M = 3.81, SD = .38$). The Cuban subgroup had the lowest scores ($M = 2.56, SD = .75$) and, along with the

Dominican subgroup ($M = 2.72, SD = 1.15$), these groups had significantly lower scores than the Central American subgroup, $p's < .05$. For the Hispanic American Acculturation scale, the Central American subgroup ($M = 2.97, SD = .65$) had significantly higher scores than both the Mexican subgroup ($M = 2.27, SD = .72$), and the 'Other' subgroup ($M = 1.10, SD .11$), $p's < .05$. The 'Other' subgroup reported the lowest scores whereas the Cuban subgroup reported the highest scores ($M = 3.38, SD = .92$).

Partial Correlations

To investigate whether demographic correlates were associated with the Acculturation subscales, but controlling for other possible demographic influences, partial correlations were conducted. In a partial correlation, for example, the relationship of age is correlated with the acculturation subscales, controlling for any possible effects from the other demographic correlates (gender, education level, socioeconomic status, generation of immigration, and primary language). The correlations reported in Table 5 are all partial correlations.

The two subscales negatively correlated with each other, $r = -.41, p < .001$. Age was positively correlated with the Hispanic Acculturation scale ($r = .28, p = .004$) but not related with Non-Hispanic American Acculturation scale ($r = .07, p = .485$). Gender was associated with only the Non-Hispanic American Acculturation scale ($r = .37, p < .001$) and not the Hispanic Acculturation scale ($r = -.01, p = .909$). Besides related to age, scores on the Hispanic Acculturation scale also correlated with speaking Spanish as a primary language ($r = .47, p < .001$) and negatively with generation of immigration ($r = -.47, p < .001$). Scores on the Non-Hispanic Acculturation scale were negatively correlated

with speaking Spanish as a primary language ($r = -.669, p < .001$) and related with generation of immigration ($r = .18, p = .057$).

Table 4.

Demographic correlates with Acculturation Subscales

Variable	1	2	3	4	5	6	7	8
1- BAS-AA	--							
2- BAS-HA	-.64**	--						
3- Age	-.12	.35**	--					
4- Gender	.25**	.04	.22*	--				
5- Education Level	-.05	.06	.06	-.09	--			
6- Socioeconomic Status	.12	-.11	.19	.03	.26*	--		
7- Generation of Immigration	.34**	-.51**	-.06	.04	-.10	-.13	--	
8- Primary Language	-.69**	.62**	.32**	.04	-.02	-.21	-.29**	--

Note: * = $p < .05$, ** $p < .01$; BAS-AA = Non-Hispanic American Acculturation scale score;

BAS-HA- Hispanic Acculturation scale score; Gender is coded 1= male, 2 = female;

Language is coded 1 = English, 2 = Spanish

Table 5

Demographic correlates with Acculturation Subscales (controlling for demographic variables)

Variable	1	2
1- BAS-AA	--	
2- BAS-HA	-.41**	
3- Age	.70	.28**
4- Gender	.37**	-.01
5- Education Level	-.03	.08
6- Socioeconomic Status	-.04	-.16
7- Generation of Immigration	.18	-.47**
8- Primary Language	-.67**	.47**

Note: * = $p < .05$, ** $p < .01$; BAS-AA = Non-Hispanic American Acculturation scale score; BAS-HA- Hispanic Acculturation scale score; Gender is coded 1= male, 2 = female; Language is coded 1 = English, 2 = Spanish.

Self-esteem. Self-esteem is one of the predictor variables. Self-esteem scores ranged from 10-30 ($M = 22.34$, $SD = 4.95$). Higher scores represent higher self-esteem. Scores below 15 represent low-self-esteem.

Self-esteem did not correlate with age ($r = -.07$, $p = .66$), gender ($r = -.13$, $p = .15$), education level ($r = -.09$, $p = .22$), SES ($r = .11$, $p = .13$), or generation of immigration ($r = .002$, $p = .85$). See Table 6 for correlations among demographic variables. There were some differences between Latino subgroup. Those of Mexican ethnicity had the lowest self-esteem scores ($M = 21.15$, $SD = 4.99$) and participants with Cuban ethnicity had the highest self-esteem scores ($M = 26.33$, $SD = 4.04$). Participants with a Central American ethnicity had significantly higher self-esteem scores ($M = 25.22$, $SD = 4.22$) than participants with a South American ethnicity ($M = 21.25$, $SD = 5.09$), $t = 2.82$, $p = .006$.

Table 6.

Demographic correlates with RSES

Variable	1	2	3	4	5	6	7
1- RSES Scores	--						
2- Age	-.07	--					
3- Gender	-.13	.22*	--				
4- Education Level	.09	.06	-.09	--			
5- Socioeconomic Status	.11	.19*	.04	.26*	--		
6- Generation of Immigration	.002	-.06	.05	-.10	-.14	--	
7- Primary Language	.01	.32*	.05	-.02	-.21*	-.29*	--

Note: * = $p < .05$; Gender is coded 1 = male, 2 = female; Language is coded 1 = English, 2 = Spanish.

Spirituality. There are 8 different subscales used to assess spirituality using the BMMRS: Daily Spiritual Experience, Values/Beliefs, Forgiveness, Private Religious Practices, Overall Religious Coping, Religious Spiritual History, Organizational Religiousness, and Overall Self-Ranking of Religion. Combining the subscales are not encouraged. For all of the subscales except the Religious Spiritual History, higher scores represent less spirituality, or disagreement with the questions. For the Religious Spiritual History, higher scores represent more spiritual experience, but the valence of that history is not assessed by that particular subscale.

See Table 7 for demographic correlates with the Spirituality subscales. Of note, speaking English as one's primarily language correlated with higher Spirituality subscale scores (except on the values and forgiveness subscales). Generation of immigration, socioeconomic status, education, and gender were also not related to any subscale. Age was negatively related to private religiousness, overall religious coping, organizational religiousness, and overall self-ranking, $p's < .01$. There were no differences in scores on any of the Spirituality subscales and Latino subgroup, all $p's > .06$.

Table 7.

Demographic correlates with Spirituality Subscales

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1- Daily Spiritual Experience	--													
2- Values/Beliefs	.68**	--												
3- Forgiveness	.69**	.45**	--											
4- Private Religious	.70**	.51**	.50**	--										
5- Religious Coping	.75**	.66**	.55**	.68**	--									
6- Organizational Religious	.61**	.44**	.41**	.79**	.59**	--								
7- Overall Self-Ranking	.74**	.53**	.44**	.60**	.61**	.57**	--							
8- Spiritual Experience	-.16	-.11	-.20*	-.20*	-.21*	-.21*	-.21*	--						
9- Age	-.16	-.07	-.02	-.25**	-.27**	-.22*	-.22*	-.07	--					
10- Gender	-.04	.03	.02	-.01	-.09	-.09	-.08	-.02	.20*	--				
11- Education Level	.13	.003	.08	.05	.08	-.03	.06	-.12	.08	-.10	--			
12- Socioeconomic Status	.04	-.12	.07	.06	-.03	-.07	-.02	-.13	.21	.02	.28**	--		
13- Immigration Generation	.18	.10	.03	.08	.01	.17	.14	.11	-.05	.04	-.09	-.11	--	
14- Primary Language	-.28*	-.12	-.19	-.44**	-.28**	-.49**	-.38**	.05	.32**	.04	-.001	-.19*	-.28*	--

Note: * = $p < .05$, ** $p < .01$; score; Gender is coded 1 = male, 2 = female; Language is coded 1 = English, 2 = Spanish

Regression Analyses

Acculturation and Depression. The first hypothesis is that Acculturation is not a significant predictor of depression in Latinos. To test this hypothesis, a hierarchical multiple regression was used, with the two Acculturation subscales predicting CES-D scores, controlling for participant's socioeconomic status (SES). To check for homoscedasticity, the standardized residuals were plotted on the y-axis against the standardized predicted values on the x-axis. This scatterplot was normally distributed. A histogram of the standardized residuals was also examined for a normal distribution and to ensure homoscedasticity (see Figure 4). The histogram was normally distributed, suggesting normality of the data (see Figure 5). The distribution of residuals on the normal p-plot also appeared normally distributed (see Figure 6).

SES was entered at Step 1, explaining 4.4% of the variance. After entering the Non-Hispanic American Acculturation subscale at Step 2, the total variance explained by the model was 5.8%, $F(2, 104) = 3.199, p = .045$. After entering in the Hispanic Acculturation subscale at Step 3, the total variance explained by the model as a whole was 6.9%, $F(3, 103) = 2.54, p = .060$. Entering the second subscale into Step 3 did not statistically significantly increase the variance explained ($p > .05$). In the final model, only SES was statistically significant ($\beta = -.23, p = .019$). This finding is that lower SES is associated with higher CES-D scores. However, neither acculturation subscale significantly predicted depression scores (p 's $> .10$). See Table 8. Thus, there is no support for the first hypothesis that acculturation predicts depression

Figure 4.

Scatterplot of residuals from predicting CES-D from Acculturation.

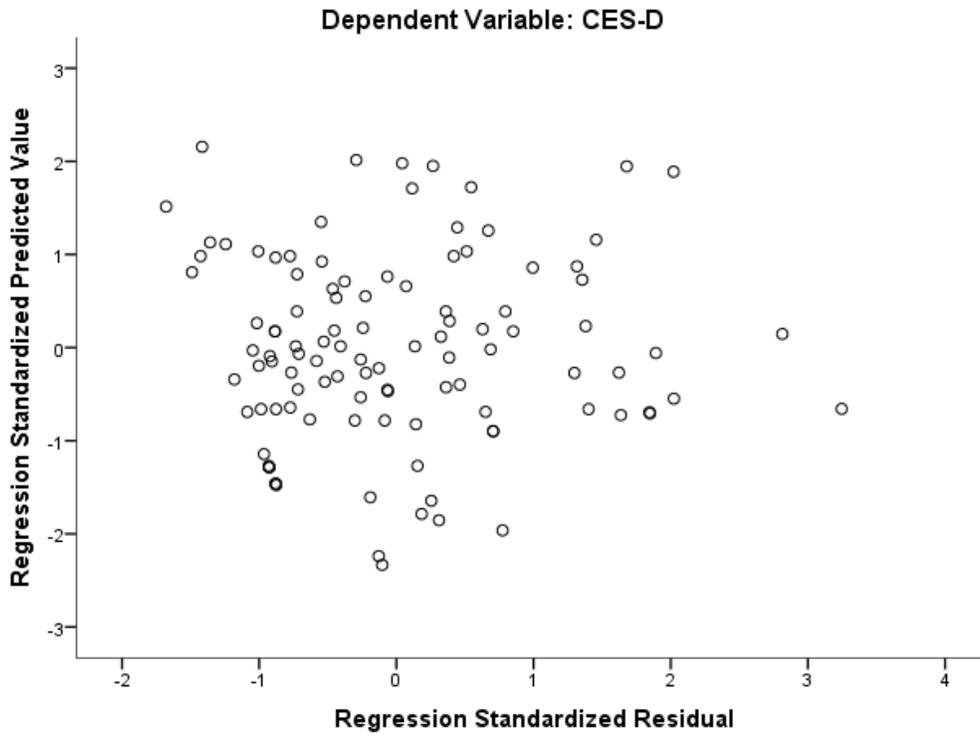


Figure 5.

Histogram of residuals from predicting CES-D from Acculturation.

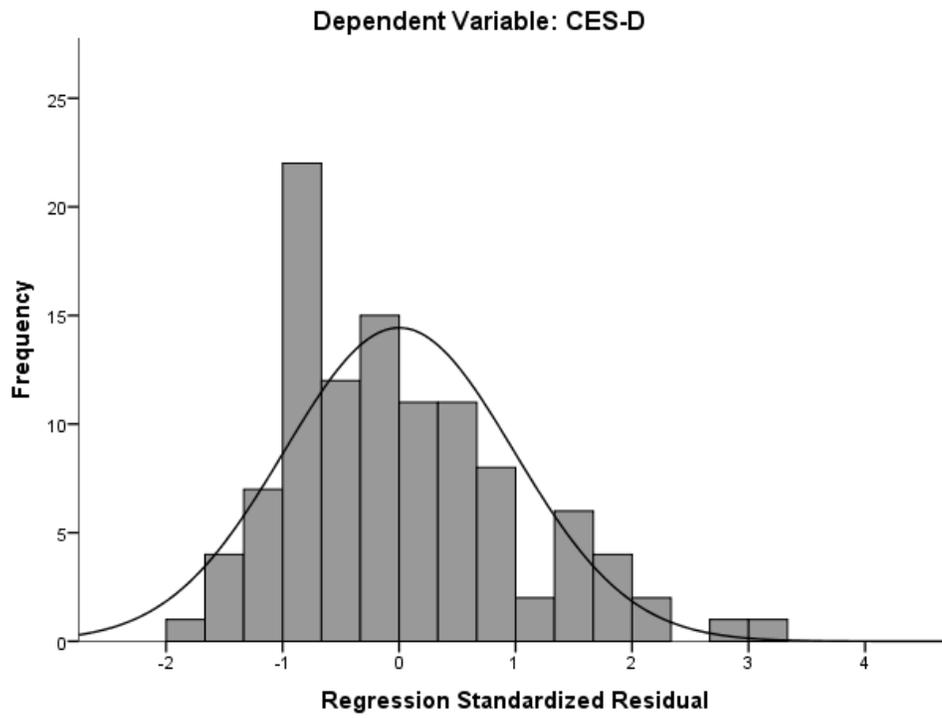


Figure 6.

P-p plot of residuals from predicting CES-D from Acculturation.

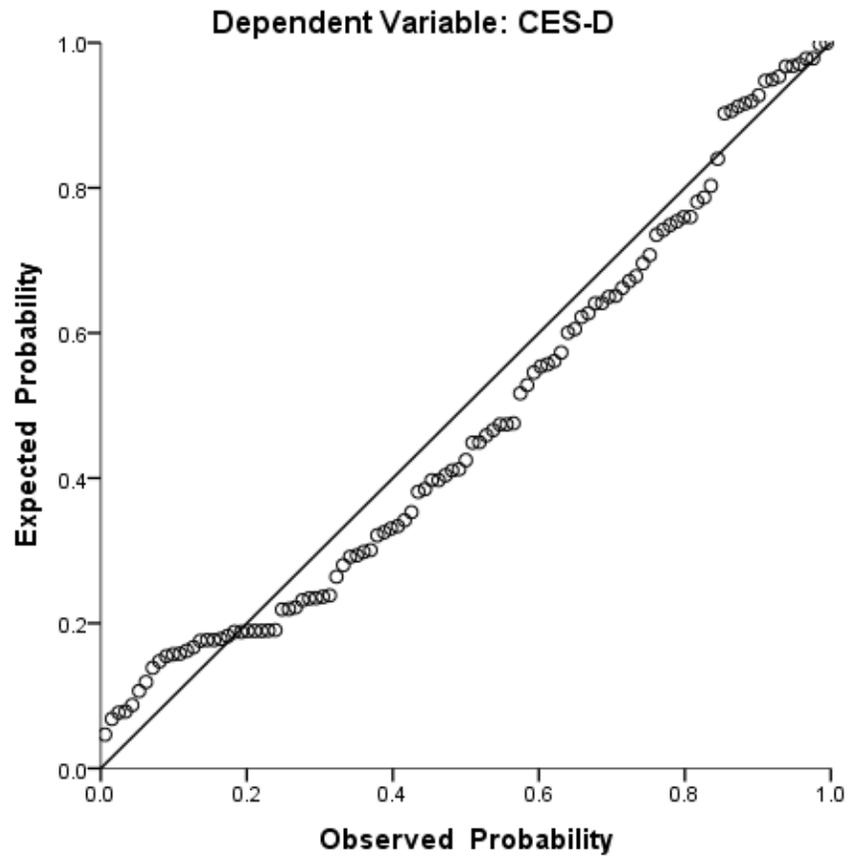


Table 8.

Acculturation Predicting Depression

Predictor	β	SE	t	p
SES	-.22	1.88	-2.38	.019
Acculturation-Non-Hispanic	.03	1.72	0.27	.785
Acculturation-Hispanic	-.13	1.44	-1.11	.272

Self-esteem and Depression. The second hypothesis is that self-esteem is a significant predictor of depression in Latinos. To test this hypothesis, a hierarchical linear regression was conducted with socioeconomic status as a control variable and self-esteem predicting depression. Again, the data was first checked to see if it met the assumptions of regression analyses (see Figure 7). Both the histogram and the normal P-P plot of residuals looked normally distributed, suggesting homoscedasticity and normally distributed data (see Figure 8 and 9). Socioeconomic status was entered into Step 1 of the regression and explained 4.4% of the variance. Self-esteem was entered into Step 2 and explained an additional 38.30% of the variance. Self-esteem significantly explained additional variance, F change (1, 104) = 69.58, $p < .001$. Overall, the model explained 42.7% of the variance, F (2,104) = 38.74, $p < .001$. In terms of the individual predictors, SES only marginally predicted depression, $\beta = -.14$, $p = .069$. However, self-esteem significantly predicted depression, $\beta = -.62$, $p < .001$. See Table 9. This finding suggests

that Latinos with low self-esteem scores have higher depression scores. Thus, there is support for the second hypothesis that self-esteem predicts depression.

Figure 7.

Scatterplot of residuals from predicting CES-D from RSES.

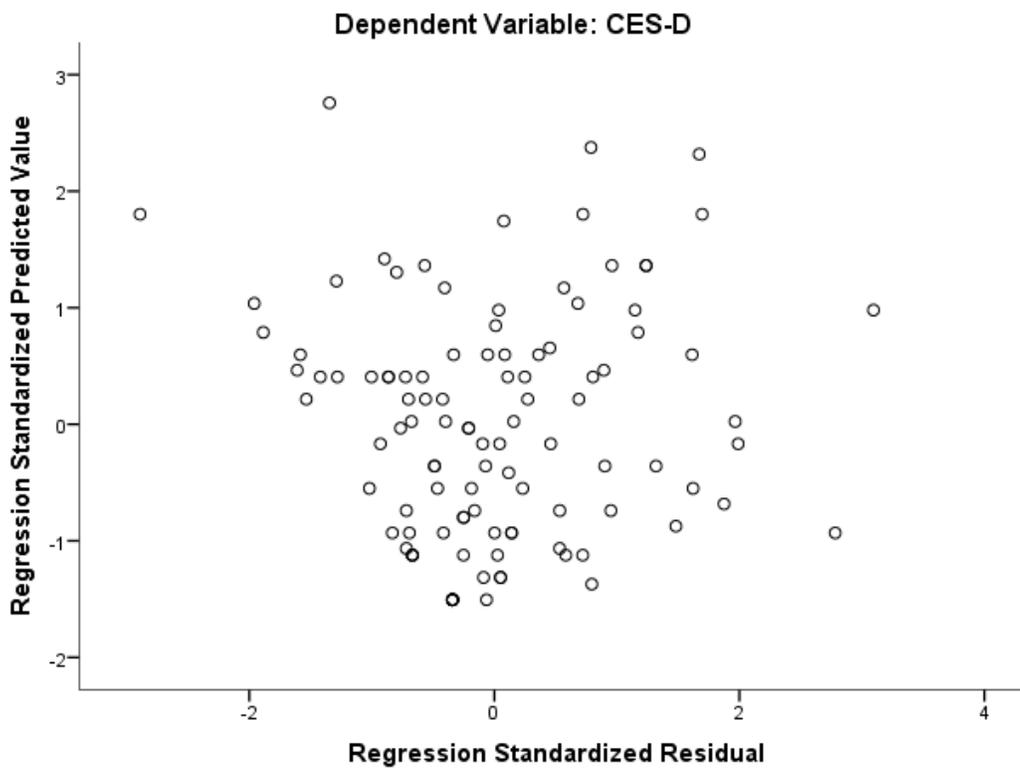


Figure 8.

Histogram of residuals from predicting CES-D from RSES.

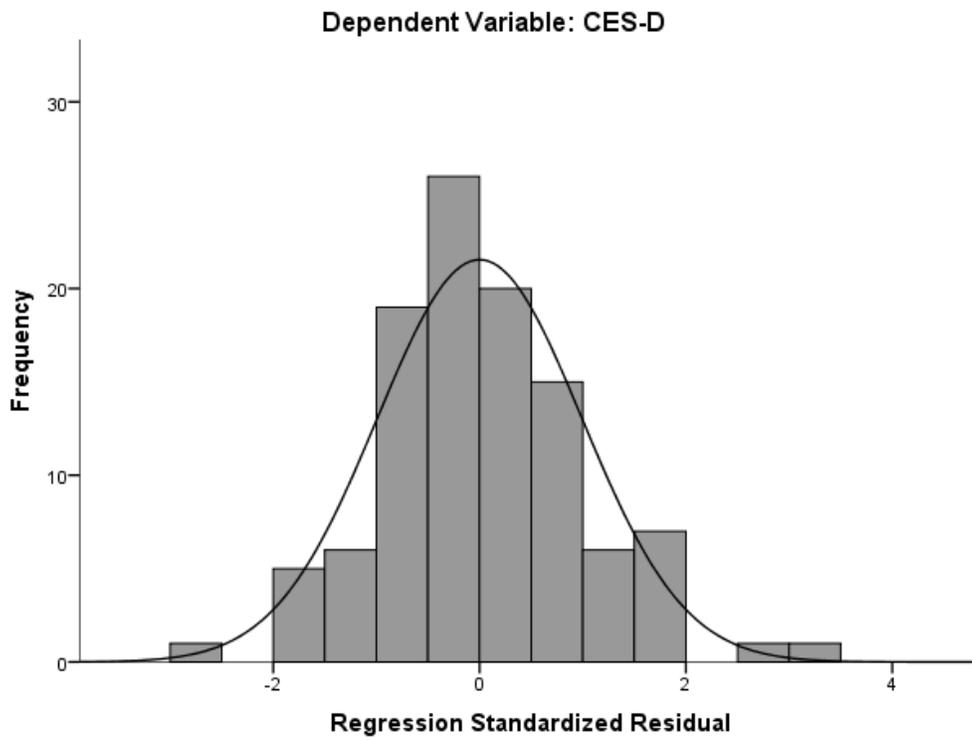


Figure 9.

P-p plot of residuals from predicting CES-D from RSES.

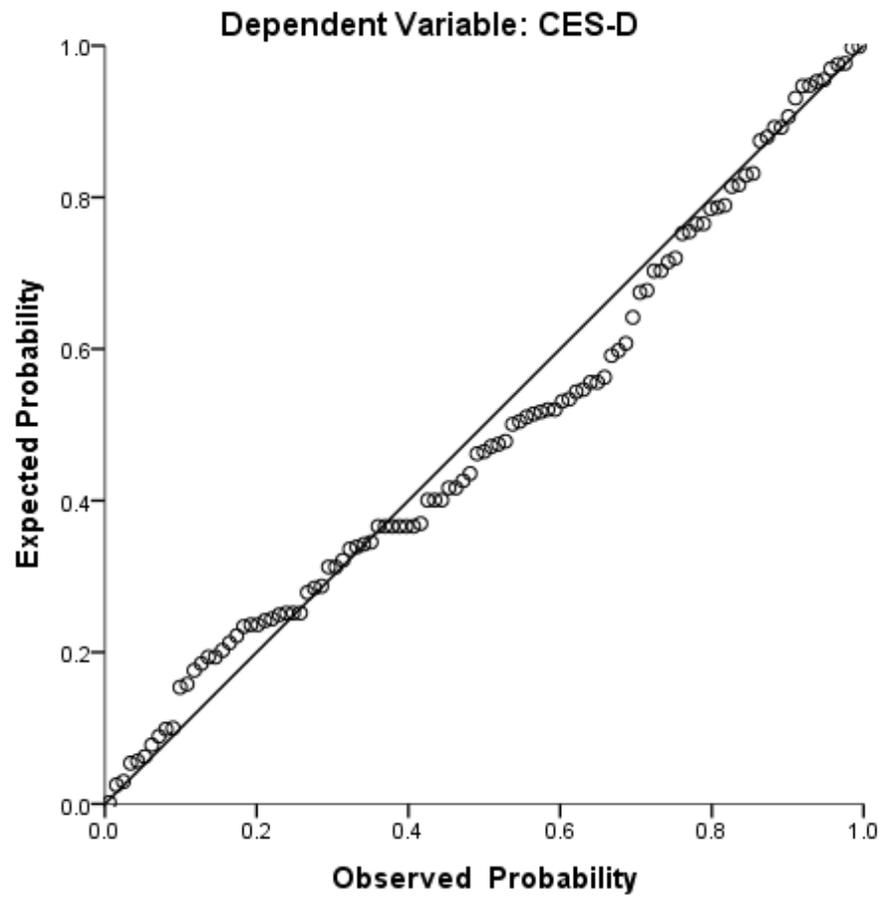


Table 9.

Self-Esteem Predicting Depression

Predictor	β	SE	t	p
SES	-.14	1.47	-1.84	.069
Self-Esteem	-.62	1.40	-8.34	<.001

Spirituality and Depression. The third hypothesis is that spirituality predicts depression. Due to the number of subscales in BMMRS, all 8 of the subscales were entered into Step 2 of a regression predicting depression, controlling for SES. Standardized residuals were examined to check for normality and homoscedasticity of the data, and the scatterplot, histogram, and P-P plot suggest normally distributed data and homoscedasticity (see Figures 10, 11, and 12). Again, in Step 1, SES explained 4.4% of the variance. The BMMRS subscales in Step 2 explained an additional 18.5% of the variance, a significant increase of variance, F change (8, 97) = 2.91, $p = .006$. Overall, the model was significant and explained 22.9% of the variance in CES-D scores, $F(9, 97) = 3.19, p = .002$. In terms of individual predictors, SES was a significant predictor of depression scores, $\beta = -.25, p = .009$. Only one Spirituality subscale significantly predicted depression scores. The forgiveness subscale significantly predicted depression scores, $\beta = .37, p = .005$. Low levels of forgiveness predicted higher depression scores. See Table 10. Thus, there is support for the third hypothesis that spirituality, specifically not forgiving, predicts depression.

Figure 10.

Scatterplot of residuals from predicting CES-D from Spirituality subscales.

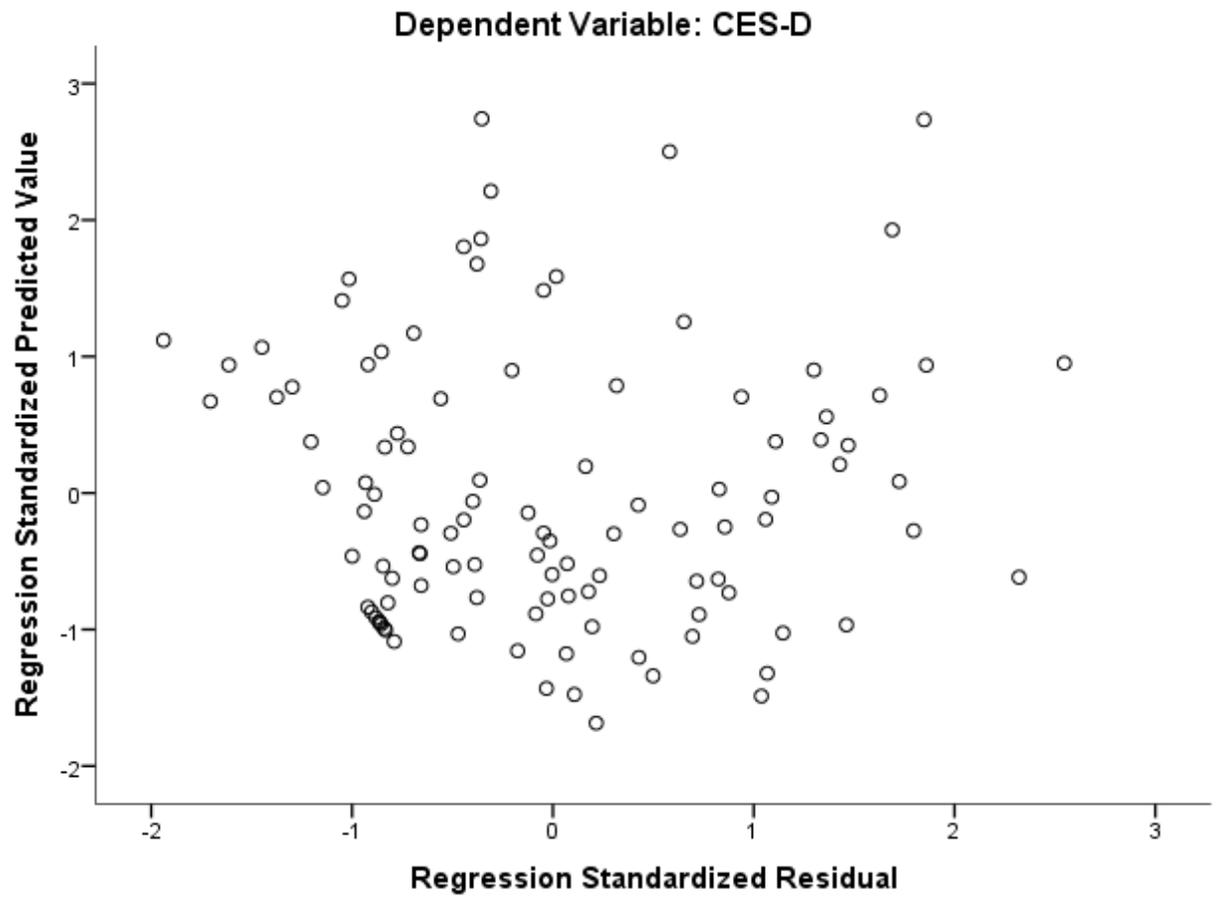


Figure 11.

Histogram of residuals from predicting CES-D from Spirituality subscales.

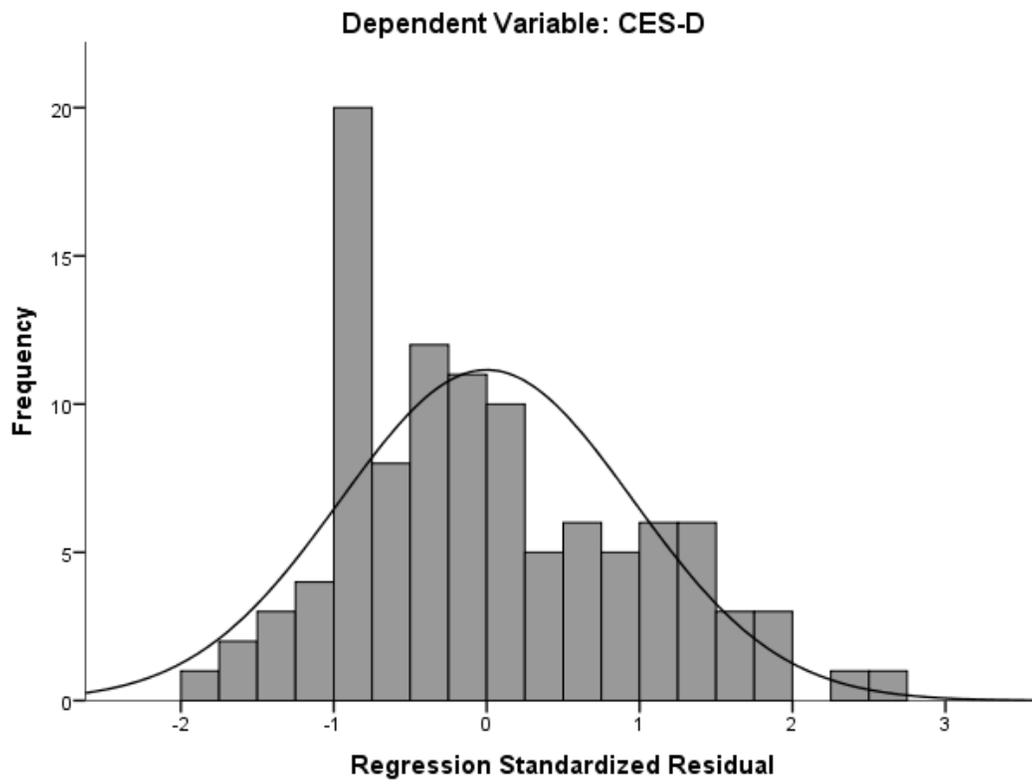


Figure 12.

P-p plot of residuals from predicting CES-D from Spirituality subscales.

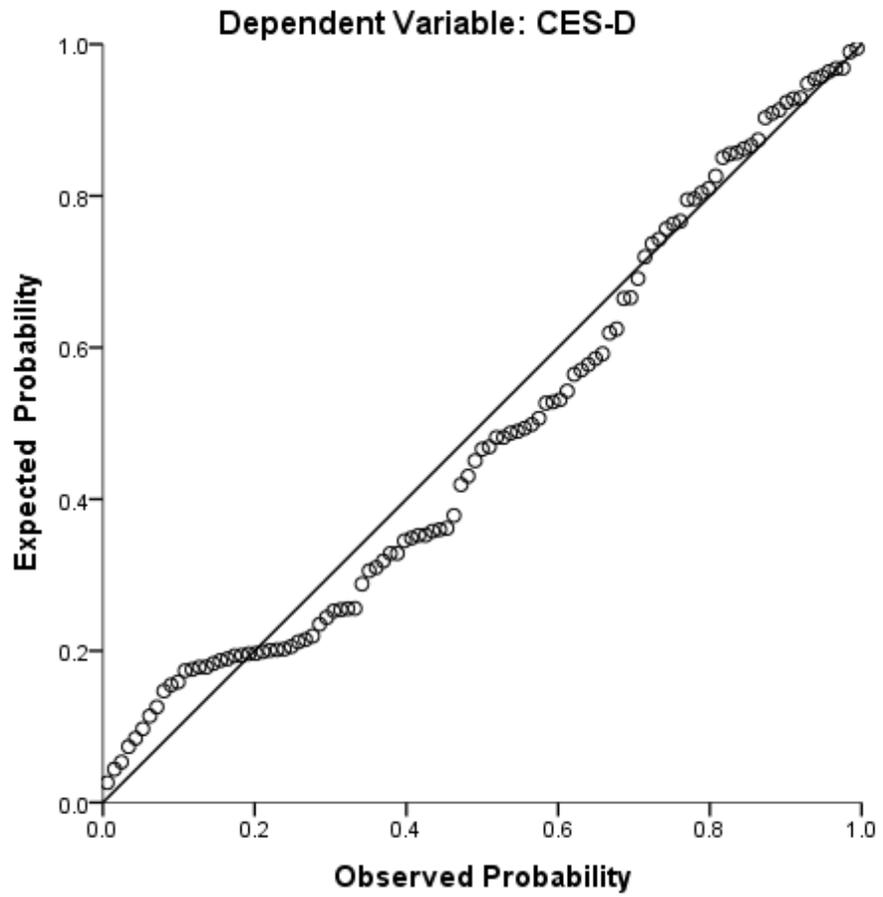


Table 10.

Spiritually Predicting Depression

Predictor	β	SE	t	p
SES	-.14	1.85	-2.65	.009
Daily Spiritual Experience	.29	.26	1.41	.163
Values/Beliefs	-.04	1.07	-.29	.775
Forgiveness	.37	.62	2.87	.005
Private Religious Practices	-.09	.18	-.54	.591
Overall Religious Coping	-.16	1.37	-1.08	.285
Organizational Religiousness	-.02	.51	-.11	.910
Religious Spiritual History	.04	.97	.40	.690
Overall Self-Rated Religiousness	-.03	.84	-.22	.829

Self-Esteem, Spirituality, and Acculturation on Depression. To test this hypothesis, a hierarchical linear regression was conducted with socioeconomic status as a control variable and self-esteem, spirituality and acculturation predicting depression. Again, the data was first checked to see if it met the assumptions of regression analyses. Both the histogram and the normal P-P plot of residuals looked normally distributed, suggesting homoscedasticity and normally distributed data (see Figure 13 and 14). Socioeconomic status was entered into Step 1 of the regression and explained 6.4% of the variance. Self-esteem was entered into Step 2 and explained an additional 46.9% of the variance. Self-esteem significantly explained additional variance, F change (1, 106) = 7.28, $p = .009$. Overall, the model explained 52.8% of the variance, $F(12,95) = 8.87$, $p < .001$. In terms of the individual predictors, after controlling for socioeconomic status, self-esteem predicted depression, $\beta = -.57$, $p = .001$. See Table 11. This finding suggests that Latinos with low self-esteem scores have higher depression scores. Thus, there is support that self-esteem predicts depression, over and beyond socioeconomic status.

Figure 13

Histogram of residuals from predicting CES-D from RSES, Acculturation, and Spirituality (controlling for SES).

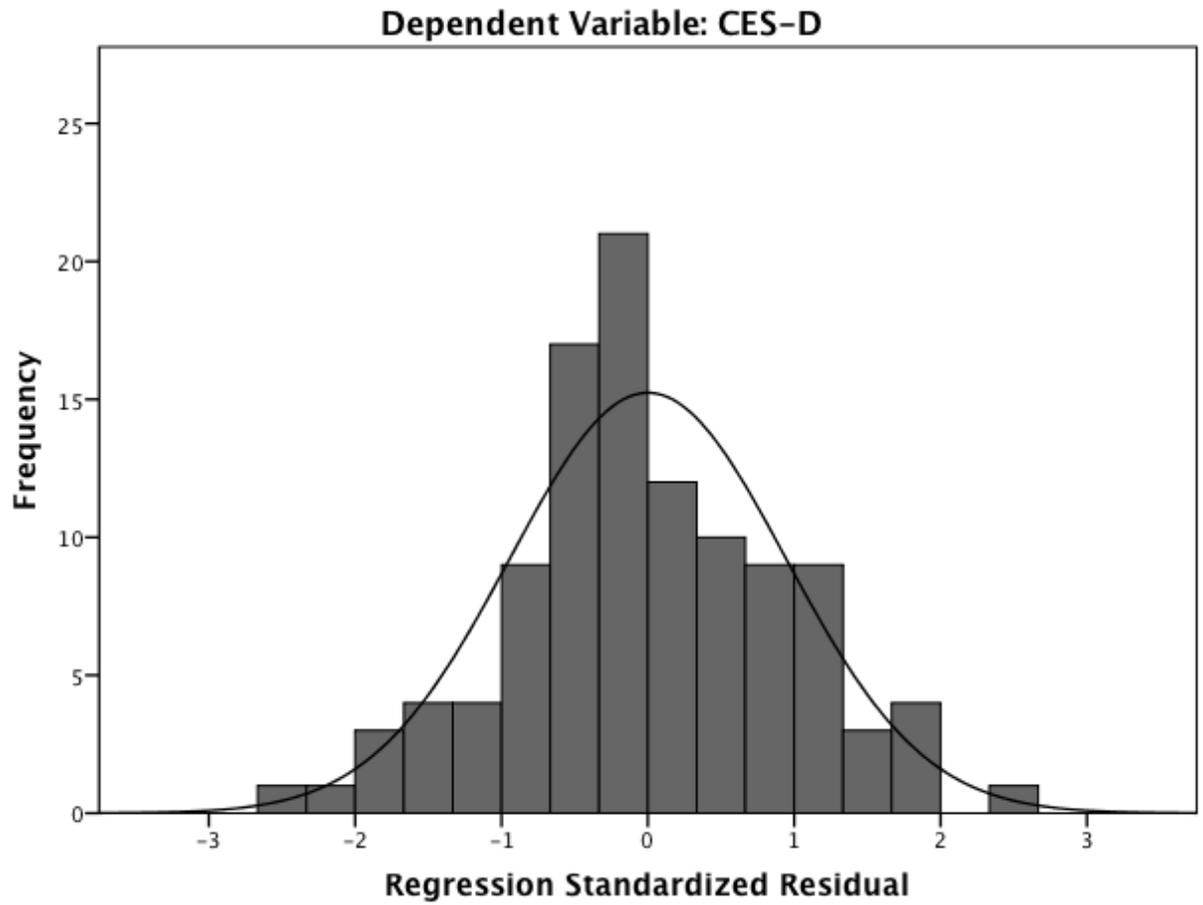


Figure 14

P-P plot of residuals from predicting CES-D from RSES, Acculturation, and Spirituality (controlling for SES).

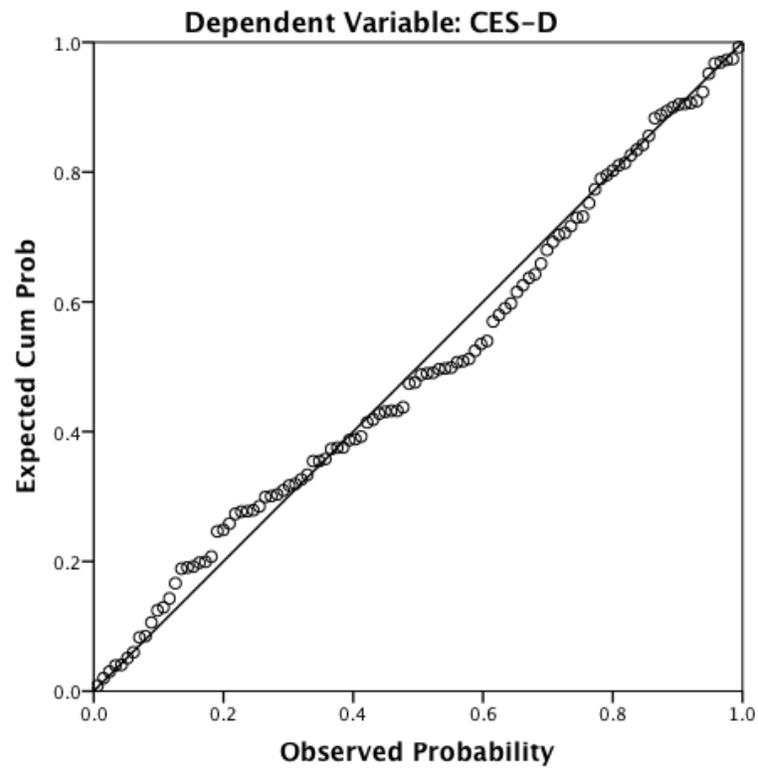


Table 11

Spirituality, Self-Esteem, and Acculturation Predicting Depression, controlling for SES

Predictor	β	SE	t	p
SES	-.20	1.59	-2.48	.015
Daily Spiritual Experience	.17	.21	1.01	.312
Values/Beliefs	.08	.92	.74	.462
Forgiveness	.19	.52	1.83	.070
Private Religious Practices	-.02	.15	-.14	.883
Overall Religious Coping	-.23	1.14	-1.92	.057
Organizational Religiousness	.02	1.59	.23	.818
Religious Spiritual History	-.001	.43	-.01	.992
Overall Self-Rated Religiousness	-.01	.71	-.86	.389
Self-Esteem	-.57	.15	-7.29	<.001
BAS-AA	-.07	1.49	-.68	.496
BAS-HA	-.18	1.17	-1.87	.06

86

Further Analyses

To examine which of the significant predictors above is the best predictor of depression in Latinos, another hierarchical linear regression was conducted. Forgiveness was entered as a Step 2 variable and self-esteem as a Step 3 variable predicting depression. SES was used as a control variable. A scatterplot, a histogram, and a P-plot for standardized residuals were checked to ensure normality and homoscedasticity (see Figures 15, 16, and 17).

Results indicated that SES accounted for 4.4% of the variance. In Step 2, forgiveness accounted for an additional 15.4% of the variance. In Step 3, self-esteem accounted for an additional 25.9% of the variance. Overall, the model was significant and accounted for 45.70% of the variance, $F(3, 103) = 28.85, p < .001$. In the full model, both predictors were significant. Low levels of forgiveness predicted higher depression scores, $\beta = .18, p = .020$. Self-esteem was the stronger predictor of depression than forgiveness, with low levels of self-esteem predicting higher levels of depression, $\beta = -.55, p < .001$. See Table 12.

Figure 15.

Scatterplot of residuals from predicting CES-D from RSES and Forgiveness.

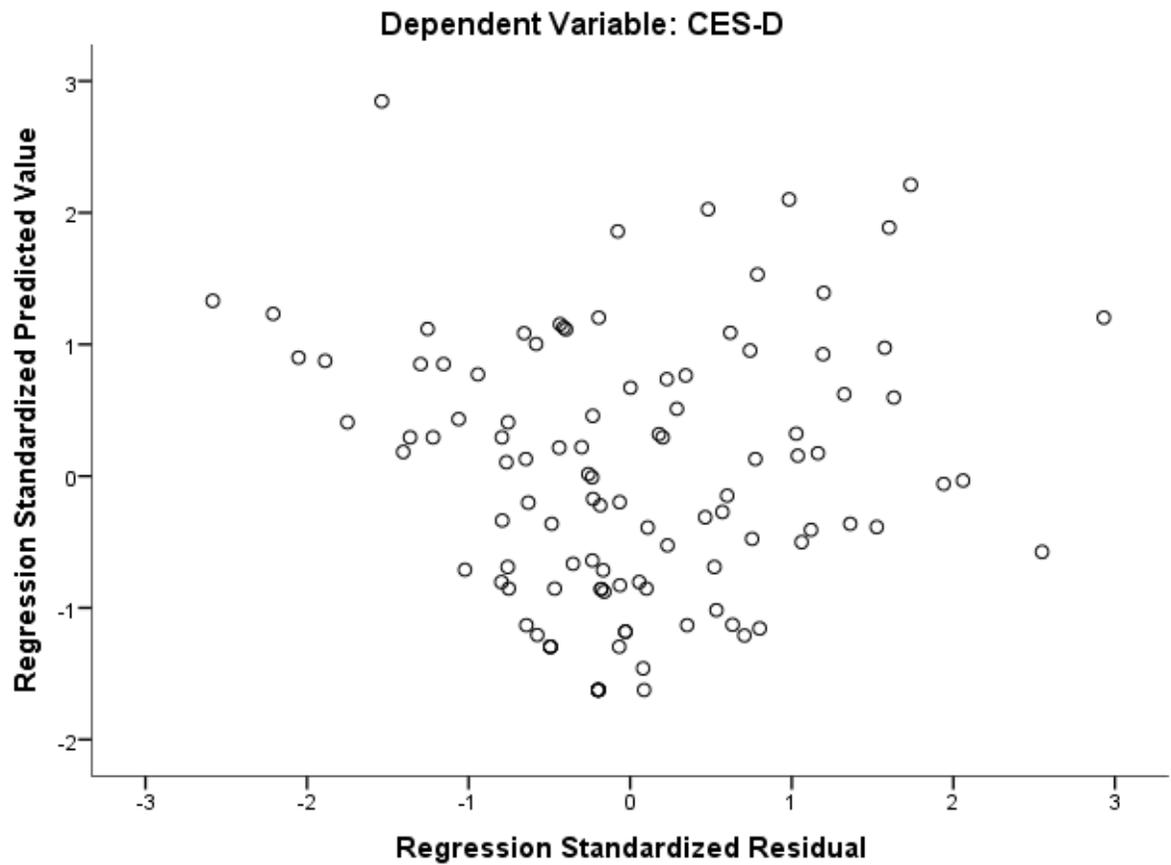


Figure 16.

Histogram of residuals from predicting CES-D from RSES and Forgiveness.

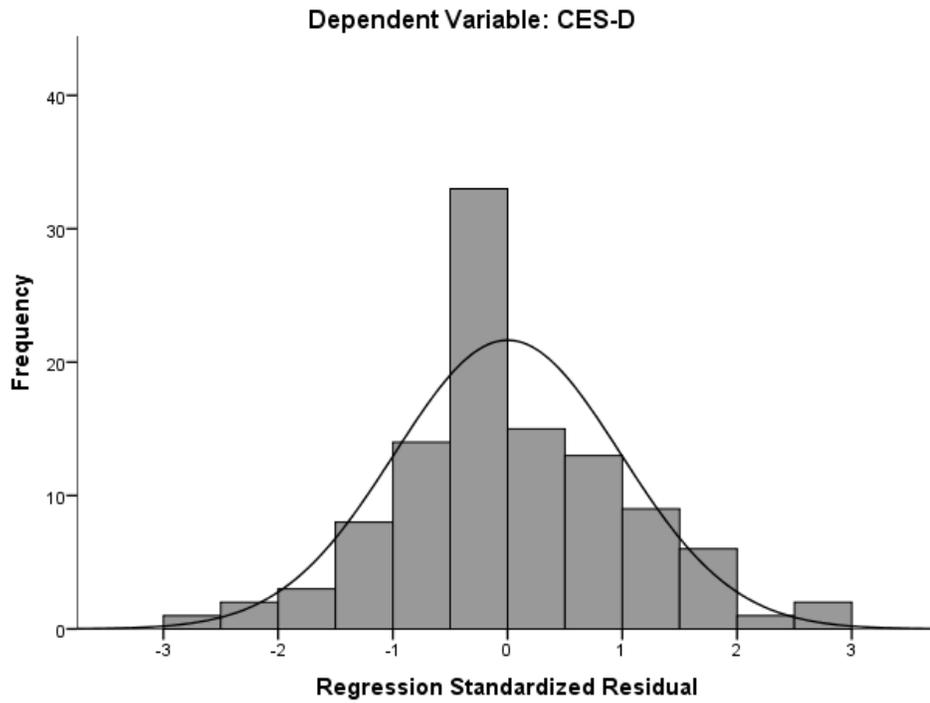


Figure 17.

P-plot of residuals from predicting CES-D from RSES and Forgiveness.

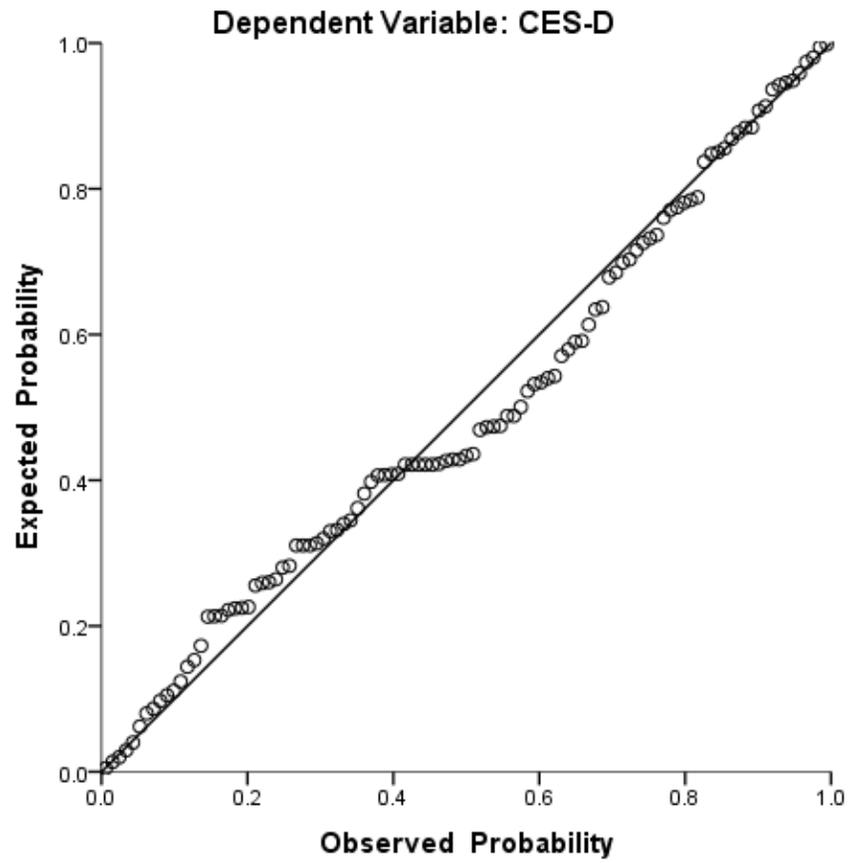


Table 12.

Self-Esteem and Forgiveness Predicting Depression

Predictor	β	SE	t	p
SES	-.16	1.45	-2.17	.032
Forgiveness	.18	.37	2.37	.020
Self-Esteem	-.55	.19	-7.01	.00

Chapter Five: Discussion

The current study sought to understand how the relationship between acculturation, self-esteem, and spirituality affects depression in a community sample of Latinos. In addition, it was important to consider underlying beliefs or assumptions, including those that may have become covert, and how those predicted the affect of depression on Latinos.

This chapter is presented in the following order: (a) Overview and discussion of hypotheses, (b) Implications, (c) Limitations, (d) Future research, and finally (e) Conclusions.

Overview and discussion of hypotheses. In this study, participant's scores on the CES-D reflect most of the sample reporting not being depressed. Since a non-clinical population was used this finding is not surprising. These scores were also examined for Latino subgroups and no significant differences were found. The scores on the CES-D were positively correlated with SES. Previous research has shown that low SES is generally associated with high psychiatric morbidity. This was consistent with the body of literature that notes the importance SES has on depression (Lorant, Deliege, Eaton, Robert, Philippot, & Ansseau, 2003).

Acculturation and Depression. The first hypothesis for this study was that acculturation is not a significant predictor of depression in Latinos. To test this hypothesis, a hierarchical multiple regression was used, with the two acculturation subscales predicting CES-D scores, controlling for participant's socioeconomic status (SES). In the final model, only SES was statistically significant. This finding is that lower SES is associated with higher CES-D scores. However, neither acculturation subscale significantly predicted depression scores. Interestingly, there was no support for the first hypothesis that acculturation predicts depression. This was contrary to the expectation that acculturation would predict depression in this study.

Self-Esteem and Depression. The second hypothesis was that self-esteem is a significant predictor of depression in Latinos. To test this hypothesis, a hierarchical linear regression was conducted with socioeconomic status as a control variable and self-esteem predicting depression. The results found suggest that Latinos with low self-esteem scores have higher depression scores. The relationship between self-esteem and depression in Latinos was significant as expected. This is consistent with the body of literature dealing with self-esteem and depression. This helps to extend the literature concerning Latinos as there was very little prior research with this population concerning these variables.

Spirituality and Depression. The third hypothesis was that spirituality predicts depression. Due to the number of subscales in BMMRS, 8 of the subscales were assessed predicting for depression, and controlling for SES. Only one Spirituality subscale significantly predicted depression scores. The forgiveness subscale significantly predicted depression scores. Low levels of forgiveness predicted higher depression

scores. Thus, there is support for the third hypothesis that spirituality, specifically not forgiving, predicts depression. This is consistent with the body of literature dealing with spirituality and depression. This helps to extend the literature concerning Latinos as there was very little prior research with this population concerning these variables.

Other Analyses. To examine which of the significant predictors is the best predictor of depression in Latinos, another hierarchical linear regression was conducted. In the full model, both self-esteem and spirituality/forgiveness were significant. Self-esteem was the stronger predictor of depression rather than spirituality/forgiveness in Latinos.

Implications. Acculturation may not have been found significant in this study due to the variability of this construct found amongst Latino sub groups (Berry, 2003). Variables that affect acculturation amongst Latino sub groups include language use, birthplace, length of time in the United States, attitudes toward family, gender roles in the family, social interaction with non-Hispanics, and cultural values. The differences of these influencing variables amongst the Latinos in this sample may have affected the outcome measures used in this study for acculturation (Cabassa, et al., 2007).

It should also be noted that differences in national origin have been associated with differences related to mental health outcomes and acculturation among Latinos. This can be due to political, historical, and cultural contexts. The Puerto Rican sub segment of Latinos has been found to be at risk for elevated mood disorders and more acculturative variance than amongst other Latino sub groups (Alegria, et al., 2007). They may have dissimilar acculturation experiences due to being U.S. citizens. This example

highlights that acculturation results are highly malleable and might be associated with diverse Latino community needs (Alegria, et al., 2008). The heterogeneity of the Latino population is a complex and detailed topic when considering researching acculturation and may have contributed to the non-significance of this part of the study. Other acculturation research studies in the past have only focused on one sub-group of Latinos (e.g. Puerto Ricans), which limits their findings to only that specific group. Awareness of the sensitivity of acculturation factors that influence its study will be important for future researchers.

The findings for this study concerning acculturation add to the current literature since discrepancies in this research continues. Many times this is due to research methodology and individual samples used (Lara et. al, 2005). This sample was unique in that it was predominantly female, had a large Mexican and South American percentage of participants, educational levels were higher than the normal Latino population, socio-economic status was in the middle range, participants were mostly first generation immigrants, and the primary language used by the participants was English. Prior research with acculturation did not focus on bicultural participants like this study. Future research with acculturation that uses bicultural participants will be necessary, since this will reflect the changing Latino population of the United States in the near future.

The results of this study have implications for clinical practice as well as for the training and education of mental health clinicians. First, there is evidence that understanding the variables that affects mental health in Latinos will help clinicians to better understand how depression manifests itself in this population. The treatment of

this underserved population using a multicultural lens will assist clinicians in the assessment of these issues and give them the ability to observe depressive patterns in this client population. Self-esteem and spirituality appear to be important factors to consider when working with Latino clients as they serve as factors that influence depression in this population. Utilizing research in order to explore an open-ended way to access the potential areas of struggle for clients from various backgrounds should be of utmost importance to clinicians (Rodriguez & Walls, 2000). Latinos are significantly less likely than other groups to seek treatment for mental health issues. This may be due to stigma or attitudes toward mental health care but addressing provider level barriers to culturally appropriate patient care is paramount to further understanding this phenomena.

Understanding that self-esteem and spirituality may play protective factors against depression is important to note for Latinos. Salient to research in this area is the further education for clinicians when working with the Latino population.

The Latino population continues to increase in the United States. The American Psychological Association continues to advocate for cultural competency amongst clinicians. Clinicians must be aware of a client's worldview and how this affects their understanding of their mental health problems (Baez & Hernandez, 2002). Awareness of these perspectives is important for clinicians to provide an ethical plan of treatment for Latinos. Clinicians may have difficulty recognizing and diagnosing depression among Latinos because of differences in language, culture, and symptom expression. Furthermore, patient participation in care may be diminished by cultural aspects or values (e.g. respeto) and clinicians need to be aware of how this may look for their clients

(Lagomasino et al., 2005). Latinos who receive culturally competent therapy services are more likely to show better treatment outcomes (Mendelson et al., 2008).

The epidemiology of depression in the United States for ethnic groups varies in prevalence rates, age of onset, severity, disability, and treatment use (Gonzalez et al., 2010). Several factors should be considered for the clinical implications of working with Latinos. Factors that contribute to depression, which include psychological, social, and biological factors (Jezzini, 2013). Findings related to the burden depression has on disability rates may underestimate its impact and this needs to be addressed to improve public health (Gonzalez, 2010). Strategies used to accommodate the need of the diverse Latino community includes employing bilingual clinicians, supportive and case management services, culturally and linguistically adaptive depression education materials, increasing patient's understanding of depression, and enhancing trust and acceptance of depression treatment (Cabassa et al., 2006).

There appears to be several themes that are barriers and facilitators of receiving care for depression in Latinos. Vulnerability, social connection, engagement, language, and culture are several factors that appear as some of these themes. Stigma, disengagement, information, and family also appear to be related to the care of depression in Latinos (Uebelacker, Marootian, Pirraglia, Primack, Tigue, Haggarty, Velazquez, Bowdoin, Kalibatseva, & Miller, 2012). These themes may also appear to be connected to acculturation, spirituality, and self-esteem in Latinos mental health outcomes (Berry, 2006).

Understanding protective and risk factors for depression in Latinos is important for clinicians to recognize. In general, Latinos underutilize depression treatment more often than non-white Latinos. Stressors, resources, and coping skills for Latinos are just a few of the numerous factors that contribute to depression in this population (Torres, 2010). Health professionals that identify factors that utilize a strong therapeutic alliance and bond with Latino clients facilitate better treatment in depressed patients due to having more cultural competence (Ishikawa, Cardemil, Alegria, Schuman, Joseph, & Bauer, 2014). Acculturation research shows that transitioning between two cultures can be quite difficult due to problems in language and cultural norms (Berry, 2006). Clinicians should view the impact of acculturation in Latino clients in a more fluid manner instead of using traditional linear models of acculturation (Torres, 2010). American acculturation can also have a positive impact on mental health seeking behaviors for Latinos due to there being less stigma. The impact of historical and political contexts is important when considering Latino acculturation (Comas-Diaz, 2006). Evaluating relevant socio-economic, developmental, and contextual factors affecting depression in Latinos will continue to be important for future research and practice.

Limitations. There are several aspects of this study that need to be considered when looking at the limitations. One of the restrictions to this study was the sample size, which was small. A larger sample may have found differences when considering the dissimilar variables of this study (e.g. acculturation). Several characteristics of the sample must be considered when looking at the implications of this study. The majority

of participants were female (65.74%). Gender may have played a role in this study due to differences in depression amongst men and women (Comas-Diaz, 2006). Also, most of the participants had received an undergraduate degree (53.70%), which is not representative of the Latino population being studied. Education and its role on the variables studied should be considered when examining this study since the majority of Latinos have a high school or less educational level (U.S. Census Bureau, 2011). Most of the participants were of middle socio-economic status (75.93%). Socio-economic status has been shown in prior research to be a stressor contributing towards depression (Lorant et al., 2007). The majority of the participants were 1st generation immigrants, which is different from the majority of Latinos in the U.S. who report being 2nd generation or more (60%) (U.S. Census Bureau, 2011). The majority of this sample reported being at the middle socio-economic level, which is also not typical of the Latino population. The majority of Latinos in this sample were South American (36.11%), Mexican (30%), and Central American (16.36%). The Cuban (6.36%), Dominican (3.64%), Puerto Rican (2.73%), and other Latinos (3.64%) groups would need to have a larger portion of participants in this study for it to be more universal. These differences with this study make it difficult to generalize the findings.

Another possible confounding variable was that the data was collected using an online tool (Survey Monkey). While this had the advantage of pulling participants from various areas of the U.S., Latinos coming from a lower socio-economic status may have had a harder time accessing computers/technology in order to participate in the study. The sample that was able to access computers/technology to participate in this study were

more likely to be more acculturated to American culture and have higher levels of education due to these variables.

The use of English only instruments in this study is another limitation. Most of the participants identified English as being their primary language of use (66.36%). This may have been a problem for Latinos who feel most comfortable filling out surveys using Spanish. Monolingual Spanish speaking Latinos would have been more restricted from participating in this study. Including the Spanish speaking Latino population would have made the results of this study more generalizable. It would have been difficult to capture the whole comprehensive picture of the Latino population in the U.S., but Spanish speaking instruments would have allowed for a larger portion of the identified group being studied to participate in the study.

This study used a convenience sample and only studied a non-clinical population of Latinos. The study of a clinical population would be helpful in understanding how the variables of spirituality, self-esteem, and acculturation affect depression in the clinical Latino population. Results from such a study may be better able to inform this study on the degrees of impact these variables have on Latinos in general. Using a sample more representative of the Latino population in the U.S. would also help to further understand the implications of this study.

Future research. It is recommended that future research look at acculturation from the acculturative stress model since this may better account for the complexity of this variable (Torres, 2010). Acculturation has been found to be a non-significant predictor of depression in past studies (Jezzini, 2013). Acculturative stress has been

found to be adversely associated with psychological adjustment in Latinos but it is not well understood (Berry, 2006). Using a tool that assesses for acculturative stress instead of acculturation may be helpful to see if a relationship with depression exists for this variable. Age was found to be positively correlated with Latino acculturation in this study. A study looking at this correlation may help to further understand how acculturation and age plays a role in Latinos lives.

Since the present study demonstrated the spiritual construct of forgiveness being significant, it is important to see how this concept is related to depression for Latinos. Further studies looking at this variable as a spiritual and non-spiritual factor may help researchers to further understand its impact on depression. The other seven subscales of the BMMRS were not significant in this study so the use of another spiritual/religious instrument may yield different results. The Spiritual Experience Index (SEI-R), which is a measure of spiritual maturity that avoids questions associated with any specific religious tradition, is a possible instrument that could be used (Fetzer, 2003). This measure has two subscales that look at spiritual support and spiritual openness and examining various forms of spirituality might further expand research in this area for Latinos. Looking at the difference for types of forgiveness (forgiveness of self vs. forgiveness of others vs. forgiveness by God) may also help to further understand how spiritual forgiveness plays a role in Latinos lives.

Mental health care disparities among ethnic groups need to be continuously monitored. Identification of these inequalities can inform the adaptation of mental health interventions that includes variables like self-esteem, spirituality, and acculturation.

Exploring and creating collaborations among various community organizations that can empower and address mental health agencies to understand and address better mental health disparities in the Latino community is paramount to future mental health research with this population (Ishikawa, et al., 2014).

Self-esteem was the strongest predictor of depression in this study. Further research in this area for Latinos can help researchers understand this phenomena. Self-esteem comes in many forms and further studies that look at Latino self-concept, self-efficacy, self-confidence, self-identity, and self-image may help identify the complexity and impact of these factors on Latino depression. There are over 2000 self-esteem related assessment instruments and choosing a multi-method, multi-rater, and multi-setting assessment is important when examining this construct (Guindon, 2002). While self-esteem is one of the most widely researched topics in psychology, there is still a lack of research on its affect on the Latino population. Further study will help researchers to understand the importance of this variable for Latinos.

Conclusions. The present study's results suggest potential implications for assessment and clinical application for clinicians engaged in therapeutic treatment of Latinos. The finding that low self-esteem in Latinos is related to depression suggests that self-esteem is an important contextual domain for Latinos that should be assessed for in clinical settings. Assessing for self-esteem may benefit treatment planning and intervention.

The spiritual construct of forgiveness predicting higher depression scores proved significant in this study. This construct appears to be multifaceted and may be

differentially related to depression for ethnic groups. While previous research has been shown that forgiveness is related to depression according to gender (Toussaint, Williams, Musick, & Everson-Rose, 2008), further research in the Latino population could provide more comprehensive answers.

Latinos will continue to face mental health disparities due to vulnerability and a continued lack of research with this community. Continued research with this community is needed to gain more insight into the complexity of this issue. Mental health professional will need to continue to educate themselves on the presentation of depression in distinct ethnic groups in order to address the needs of the community in an ethical, competent, and professional manner.

The concepts of self-esteem, spirituality, acculturation and its relationship with depression in Latinos are complex and require careful thought. These fields have been studied previously but the relationship between these variables among the Latino population needs to be examined further. Mental health professionals should continue to educate themselves about self-esteem, spirituality, and acculturation and the important considerations they have for clinical treatment of Latino mental health. The education of mental health professionals in these areas will continue to be a vital areas of research since this will help determine the empowerment and facilitation of Latinos in accessing culturally competent community services. The internal and external support that Latinos appear to receive from positive self-esteem and spirituality may help to give them resiliency toward depression. There are numerous variables that can influence Latino's self-esteem, spirituality, and acculturation and further study studies in this area should be

expanded. This will help to provide better ethical and culturally competent care for Latinos, which is what mental health professionals, should strive to obtain in working with their clients.

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Appendix A

University of Denver Protocol Approval (514685-2)

DATE: April 10, 2014

TO: Fernando Avila, M.S.

FROM: University of Denver (DU) IRB

PROJECT TITLE: [514685-2] SELF-ESTEEM, SPIRITUALITY,
AND ACCULTURATION AND THEIR
RELATIONSHIP WITH DEPRESSION IN
LATINOS

SUBMISSION TYPE: Response/Follow-Up

ACTION: APPROVED

APPROVAL DATE: March 27, 2014

EXPIRATION DATE: March 26, 2015

REVIEW TYPE: Expedited Review

REVIEW CATEGORY: Expedited review category # 7

Thank you for your submission of Response/Follow-Up materials for this project. The University of Denver (DU) IRB has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a project design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on the applicable federal regulations.

Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding followed by a signed consent form. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require each participant receives a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this office prior to initiation. Please use the appropriate revision forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office. Please use the appropriate reporting forms for this procedure. All FDA and sponsor reporting requirements should also be followed.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this committee.

This project has been determined to be a Minimal Risk project. Based on the risks, this project requires continuing review by this committee on an annual basis. Please use the appropriate forms for this procedure. Your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date of March 26, 2015.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact DU Research Compliance Office at (303) 871-4052 or irbadmin@du.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 Denver (DU) IRB's records.

Appendix B

Approval Date: 3/27/2014

Valid for use through: 3/27/2014-3/26/2014

Project Title: SELF-ESTEEM, SPIRITUALITY, AND ACCULTURATION AND THE RELATIONSHIP WITH DEPRESSION IN LATINOS

Principal Investigator: Fernando Avila, M.S.

Faculty Sponsor: Jesse Valdez, Ph.D.

DU IRB Protocol #: 514685-2

INFORMED CONSENT FORM

Introduction

You are invited to join a research study. It is about identity and mental health. If you agree to be part of the research, you will be asked to fill out several surveys. This will take about 15-25 minutes. Taking part in this project is voluntary. You will not be expected to pay any costs related to the study. There are not any known risks linked with this study other than those met in day-to-day life. If you feel any unease, you may stop at any time. We respect your right to choose not to answer any questions. You may also change your mind and stop at any time. Withdrawal from the study will not involve penalty or loss of benefits. At the end, you will be invited to enter a drawing for five \$20 gift cards to Amazon.com. This study is being carried out by Fernando Avila, MS. You can contact Fernando Avila by email at (fernando_105@hotmail.com). You can also call (626) (203-3242). This project is supervised by Dr. Jesse Valdez, Department of Counseling Psychology, University of Denver, Denver, CO 80208. He can be contacted at Jesse.Valdez@du.edu. You can also call (303) 871-2482. This project has been approved by the Institutional Review Board of the University of Denver.

Use of Data

This study is designed to learn about mental health. Your answers will be anonymous. This means that no one will be able to connect you with your information. A study number will be used instead. Please do not put your name anywhere on these forms. Anyone who consents to join the study will check a box at the bottom of the online consent form. This will indicate consent. Only the researcher and faculty sponsor will have access to your data. Any reports used as a result of this study will use group averages and paraphrased wording. However, if any data in this study is the subject of a court order or lawful subpoena, the University of Denver might not be able to avoid compliance with the order or subpoena.

Questions or Concerns

You may ask any questions you have now or later. This may include complaints with this study or your rights as a subject. It may also include any research related injuries or other human subject issues. If you would like to talk to someone other than the researcher, please contact Paul Olk, Chair, Institutional Review Board for the Protection

of Human Subjects. He can be reached at 303-871-4531. You can also contact the Office for Research Compliance by email (du-irb@du.edu). You can also call 303-871-4050 or write (University of Denver, Office of Research and Sponsored Programs, 2199 S. University Blvd., Denver, CO 80208-2121).

You may print this page for your records. Please check below that you understand and agree to the above. If you do not understand any part of this form, please contact the researcher.

I have read and understood the earlier descriptions of the study. I agree to participate in this study, and I understand that I may withdraw my consent at any time.

I have read the above statement and agree to participate in this study.

I decline participation in this study.

Appendix C

Demographic Questionnaire

1. What is your age?

2. What is your gender?
 - a. Male
 - b. Female
 - c. Transgender

3. How would you describe your Latino ethnicity/ancestry of origin?
 - a. Mexican
 - b. Cuban
 - c. Puerto Rican
 - d. Dominican
 - e. South American
 - f. Central American
 - g. Other Latino origin

4. What religion do you consider yourself to be?
 - a. Buddhist
 - b. Christian
 - c. Hindu
 - d. Islamic
 - e. Jewish
 - f. No religious belief/agnostic/atheist
 - g. Other

5. What is the highest level of education that you have completed?
 - a. 8th grade and below
 - b. 9th to 12th grade
 - c. Undergraduate College
 - d. Graduate school

6. How would you describe your Socioeconomic Status (SES)?
 - a. Low
 - b. Middle
 - c. Upper

7. What is your marital status?
 - a. Single

 - b. Married

 - c. Divorced

 - d. Widowed

 - e. Living with domestic partner

8. What is your generation of immigration?
 - a. 1st (immigrant to the United States)

 - b. 2nd (U.S. born child of at least one foreign born parent)

 - c. 3rd (U.S. born child of two U.S. born parents where at least one grandparent is foreign born)

 - d. Other

9. Primary Language Used?

a. English

b. Spanish

Appendix D

The Bidirectional Acculturation Scale for Hispanics (BAS):

English Version (Marin & Gamba, 2003)

Response categories: *Items 1–6*: 1 = Almost never; 2 = Sometimes; 3 = Often; 4 = Almost always

Language Use Subscale

1. How often do you speak English?
2. How often do you speak in English with your friends?
3. How often do you think in English?
4. How often do you speak Spanish?
5. How often do you speak in Spanish with your friends?
6. How often do you think in Spanish?

Response categories: *Items 7–18*: 1 = Very poorly; 2 = Poorly; 3 = Well; 4 = Very well

Linguistic Proficiency Subscale

7. How well do you speak English?
8. How well do you read in English?
9. How well do you understand TV programs in English?
10. How well do you understand radio programs in English?
11. How well do you write in English?
12. How well do you understand music in English?
13. How well do you speak Spanish?
14. How well do you read in Spanish?
15. How well do you understand TV programs in Spanish?
16. How well do you understand radio programs in Spanish?
17. How well do you write in Spanish?
18. How well do you understand music in Spanish?

Response categories: *Items 19–24*: 1 = Almost never; 2 = Sometimes; 3 = Often; 4 = Almost always

Electronic Media Subscale

19. How often do you watch TV programs in English?
20. How often do you listen to radio programs in English?
21. How often do you listen to music in English?
22. How often do you watch TV programs in Spanish?
23. How often do you listen to radio programs in Spanish?
24. How often do you listen to music in Spanish?

Appendix E

Rosenberg Self-Esteem Scale (Rosenberg, 1965)

Instructions: Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle **SA**. If you agree with the statement, circle **A**. If you disagree, circle **D**. If you strongly disagree, circle **SD**.

- | | | | | |
|---|----|---|---|----|
| 1. On the whole I am satisfied with myself. | SA | A | D | SD |
| 2. At times, I think I am a no good at all. | SA | A | D | SD |
| 3. I feel that I have a number of good qualities. | SA | A | D | SD |
| 4. I am able to do things as well as most other people. | SA | A | D | SD |
| 5. I feel I do not have much to be proud of. | SA | A | D | SD |
| 6. I certainly feel useless at times. | SA | A | D | SD |
| 7. I feel that I'm a person of worth, at least on an equal plane with others. | SA | A | D | SD |
| 8. I wish I could have more respect for myself. | SA | A | D | SD |
| 9. All in all, I am inclined to feel that I am a failure. | SA | A | D | SD |
| 10. I take a positive attitude toward myself. | SA | A | D | SD |

Appendix F

Brief Multidimensional Measure of Religiousness/Spirituality: (Fetzer, 2003)

Daily Spiritual Experiences

The following questions deal with possible spiritual experiences. To what extent can you say you experience the following:

1. I feel God's presence.

- 1 - Many times a day
- 2 - Every day
- 3 - Most days
- 4 - Some days
- 5 - Once in a while
- 6 - Never or almost never

2. I find strength and comfort in my religion.

- 1 - Many times a day
- 2 - Every day
- 3 - Most days
- 4 - Some days
- 5 - Once in a while
- 6 - Never or almost never

3. I feel deep inner peace or harmony.

- 1 - Many times a day
- 2 - Every day
- 3 - Most days
- 4 - Some days
- 5 - Once in a while
- 6 - Never or almost never

4. I desire to be closer to or in union with God.

- 1 - Many times a day
- 2 - Every day
- 3 - Most days
- 4 - Some days
- 5 - Once in a while
- 6 - Never or almost never

5. I feel God's love for me, directly or through others.

- 1 - Many times a day

- 2 - Every day
- 3 - Most days
- 4 - Some days
- 5 - Once in a while
- 6 - Never or almost never

6. I am spiritually touched by the beauty of creation.

- 1 - Many times a day
- 2 - Every day
- 3 - Most days
- 4 - Some days
- 5 - Once in a while
- 6 - Never or almost never

Values/Beliefs

7. I believe in a God who watches over me.

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

8. I feel a deep sense of responsibility for reducing pain and suffering in the world.

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

Forgiveness

Because of my religious or spiritual beliefs:

9. I have forgiven myself for things that I have done wrong.

- 1 - Always or almost always
- 2 - Often
- 3 - Seldom
- 4 - Never

10. I have forgiven those who hurt me.

- 1 - Always or almost always
- 2 - Often
- 3 - Seldom
- 4 - Never

11. I know that God forgives me.

- 1 - Always or almost always
- 2 - Often
- 3 - Seldom
- 4 - Never

Private Religious Practices

12. How often do you pray privately in places other than at church or synagogue?

- 1 - More than once a day
- 2 - Once a day
- 3 - A few times a week
- 4 - Once a week
- 5 - A few times a month
- 6 - Once a month
- 7 - Less than once a month
- 8 - Never

13. Within your religious or spiritual tradition, how often do you meditate?

- 1 - More than once a day
- 2 - Once a day
- 3 - A few times a week
- 4 - Once a week
- 5 - A few times a month
- 6 - Once a month
- 7 - Less than once a month
- 8 - Never

14. How often do you watch or listen to religious programs on TV or radio?

- 1 - More than once a day
- 2 - Once a day
- 3 - A few times a week
- 4 - Once a week
- 5 - A few times a month
- 6 - Once a month
- 7 - Less than once a month
- 8 - Never

15. How often do you read the Bible or other religious literature?

- 1 - More than once a day
- 2 - Once a day
- 3 - A few times a week
- 4 - Once a week
- 5 - A few times a month
- 6 - Once a month
- 7 - Less than once a month
- 8 - Never

16. How often are prayers or grace said before or after meals in your home?

- 1 - At all meals
- 2 - Once a day
- 3 - At least once a week
- 4 - Only on special occasions
- 5 - Never

Religious and Spiritual Coping

Think about how you try to understand and deal with major problems in your life. To what extent is each of the following involved in the way you cope?

17. I think about how my life is part of a larger spiritual force.

- 1 - A great deal
- 2 - Quite a bit
- 3 - Somewhat
- 4 - Not at all

18. I work together with God as partners.

- 1 - A great deal
- 2 - Quite a bit
- 3 - Somewhat
- 4 - Not at all

19. I look to God for strength, support, and guidance.

- 1 - A great deal
- 2 - Quite a bit
- 3 - Somewhat
- 4 - Not at all

20. I feel God is punishing me for my sins or

lack of spirituality.

- 1 - A great deal
- 2 - Quite a bit
- 3 - Somewhat
- 4 - Not at all

21. I wonder whether God has abandoned me.

- 1 - A great deal
- 2 - Quite a bit
- 3 - Somewhat
- 4 - Not at all

22. I try to make sense of the situation and decide what to do without relying on God.

- 1 - A great deal
- 2 - Quite a bit
- 3 - Somewhat
- 4 - Not at all

23. To what extent is your religion involved in understanding or dealing with stressful situations in any way?

- 1 - Very involved
- 2 - Somewhat involved
- 3 - Not very involved
- 4 - Not involved at all

Religious/Spiritual History

24. Did you ever have a religious or spiritual experience that changed your life?

- No
- Yes

25. Have you ever had a significant gain in your faith?

- No
- Yes

26. Have you ever had a significant loss in your faith?

- No
- Yes

Organizational Religiousness

27. How often do you go to religious services?

- 1 - More than once a week
- 2 - Every week or more often
- 3 - Once or twice a month
- 4 - Every month or so
- 5 - Once or twice a year
- 6 - Never

28. Besides religious services, how often do you take part in other activities at a place of worship?

- 1 - More than once a week
- 2 - Every week or more often
- 3 - Once or twice a month
- 4 - Every month or so
- 5 - Once or twice a year
- 6 - Never

Overall Self-Ranking

29. To what extent do you consider yourself a religious person?

- 1 - Very religious
- 2 - Moderately religious
- 3 - Slightly religious
- 4 - Not religious at all

30. To what extent do you consider yourself a spiritual person?

- 1 - Very spiritual
- 2 - Moderately spiritual
- 3 - Slightly spiritual
- 4 - Not spiritual at all

Appendix G

CENTER FOR EPIDEMIOLOGIC STUDIES—DEPRESSION SCALE (CES-D)

(Radloff, 1977)

Circle the number of each statement which best describes how often you felt or behaved this way – DURING THE PAST WEEK.

	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of the time (3-4 days)	Most or all of the time (5-7 days)
During the past week:	0	1	2	3
1) I was bothered by things that usually don't bother me	0	1	2	3
2) I did not feel like eating; my appetite was poor	0	1	2	3
3) I felt that I could not shake off the blues even with help from my family and friends	0	1	2	3
4) I felt that I was just as good as other people	0	1	2	3
5) I had trouble keeping my mind on what I was doing	0	1	2	3
6) I felt depressed	0	1	2	3
7) I felt that everything I did was an effort	0	1	2	3
8) I felt hopeful about the future	0	1	2	3

9) I thought my life had been a failure	0	1	2	3
10) I felt fearful	0	1	2	3
11) My sleep was restless	0	1	2	3
12) I was happy	0	1	2	3
13) I talked less than usual	0	1	2	3
14) I felt lonely	0	1	2	3
15) People were unfriendly	0	1	2	3
16) I enjoyed life	0	1	2	3
17) I had crying spells	0	1	2	3
18) I felt sad	0	1	2	
19) I felt that people disliked me	0	1	2	3
20) I could not get "going"	0	1	2	3