Depression: An Investigation of the Risk Factors Associated with High Depressive Symptoms Among the Latino Immigrant Population

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DEPRESSION: AN INVESTIGATION OF THE RISK FACTORS ASSOCIATED WITH HIGH DEPRESSIVE SYMPTOMS AMONG THE LATINO IMMIGRANT POPULATION

by

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A thesis submitted in partial fulfillment of the requirements for the Honors in the Major Program in Psychology in the College of Sciences and in The Burnett Honors College at the University of Central Florida Orlando, Florida

Spring Term 2015

Thesis Chair: Dr. Charles Negy
ABSTRACT

Depression seems to affect a large portion of Americans living the U.S. Specifically, it has been found to affect the Latino population more so than other ethnicities. When considering Latino immigrants, it is important to take into consideration the additional challenges (e.g. adaptation, acculturation) that may lead to the development of depression. In the current study, the aim is to find a relationship between depression and other psychological constructs (e.g. dominant group and intragroup marginalization, acculturative stress) in order to determine high risk factors for depressive symptoms among Latino immigrants in the Florida community. 128 Latino immigrants (44 males, 81 females, 3 indicated no specific gender) residing in the Central Florida Community completed scales assessing Marginalization by non-Latinos, Marginalization by Latinos, Symptoms of Depression, and Social Support. Marginalization by Whites and by Latinos/as was not associated significantly with symptoms of depression ($r = .16$ and $- .02$, $p > .05$, respectively). In contrast, acculturative stress correlated significantly with symptoms of depression ($r = .33$, $p < .01$). It was also predicted that social support would mitigate the association between acculturative stress and symptoms of depression. To test this, I first established that social support correlated significantly with symptoms of depression ($r = -.39$, $p < .001$). Next, a partial correlation analysis was conducted to determine the relation between acculturative stress and symptoms of depression while partialing social support. The resulting correlation ($r = .30$, $p < .01$) suggested that social support did not account for the observed association between acculturative stress and symptoms of depression. From a clinical perspective, this research is beneficial in knowing what may contribute to depressive symptoms among a growing population, which could then create additional components to consider in treatments.
DEDICATIONS

In memory of my belonged grandmother Angelina Ortiz who passed away June 18, 2014.

For my mentors, Dr. Charles Negy, Michael Aldarondo-Jeffries

And especially, for my mother and father Ana and Rene Altamirano, my aunt and uncle Maria and Miguel Mejia, and cousin Genesis Mejia. To my friends Nicholas P. Joseph, Diego Plaza, and Alex Pompee for their unlimited supply of support and love. All this would not be possible without you.
ACKNOWLEDGMENTS

I would like to express my deepest appreciation to my mentor Dr. Charles Negy (thesis chair) for always being completely honest with me and being extremely patient during my thesis writing time. Without your help I could not have gone through with this whole process. I truly have learned from one of the best professors the University of Central Florida has to offer. I would like to thank my additional committee members Dr. Alma Alarcon and Dr. Kimberly Renk for all your support and feedback. To the McNair Program, thank you so much for providing me with the resources I needed to be successful. Particularly, Michael Aldarondo-Jeffries, Arlene Ollivierre, and Natalia Toro who have watched me grow up and become the women I am today. To my amazing family, I love you all and thank you for being there for me through this long process. To all my friends, thank you for being so supportive and understanding the difficult journey of trying to write a thesis.
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CHAPTER ONE: INTRODUCTION

Depression

Depression is one of the most frequently diagnosed clinical disorders in the U.S. (Abela & D’Allesandro, 2002; Beck, Rush, Shaw, & Emery, 1979; Kessler, McGonagle, Zhao, Nelson, Hughes, & Eshleman et al., 1994; Menselson, Rehkopf, & Kubzonsky, 2008; Moussavi et al., 2007). Some studies indicated that a large portion of Americans will experience some form of depressive symptom in their life time (Beck et al., 1979; Beck, 1967; Blatt, D’Afflitti, & Quinlan, 1976; Brown & Harris, 1978; Kessler et al., 1994; Menselson et al., 2008; Moussavi et al., 2007; Torres, et al., 2007). Concerns now are being raised about whether depression should be the central focus of emerging mental health research because of the negative impact it has on individuals’ lives. For example, depression appears to plays a role in individuals’ ability to feel a sense of belonging (Hagerty, Williams, Coyne, & Early, 1996). Other studies suggested that individuals with depression have fewer intimate relationships compared to non-depressed individuals (Gotlib, 1992; Joiner & Coyne, 1999; Segrin & Abramson, 1994; Steger & Kashan, 2009). An explanation for such findings could be that individuals with depression appear to have a negative effect on others and relationships, thereby resulting in rejection and loss of socially satisfying opportunities (Coyne, Gallo, Klinkman, & Calarco, 1998; Coyne, 1976; Joiner et al., 1999; Steger et al., 2009). Depression also seems to affect individuals’ overall well-being (Steger et al., 2009) and how they function in society.

Although depression may be an ongoing discussion studied extensively among non-Latino Whites, research on the prevalence of depression among Latinos is more limited
The Latino population may experience higher rates of depression when compared to other races (e.g., Whites). For instances, the National Comorbidity Survey reported higher rates of depression among Latinos and African Americans compared to Whites (Blazer, Kessler, McGonagle, & Swartz, 1994; Chio, Meininger, & Roberts, 2006; Lorenzo-Blanco, Uger, Baezconde-Garbanati, Ritt-Olson, & Soto, 2012; Menselson et al., 2008; Torres et al., 2007;). Many factors may contribute to these recent findings. One area that should be taken into consideration is determining the relationship between maladjustment and depression among Latino immigrants. The adaptation process might be a critical component to the Latino population’s overall success in the U.S.

**Acculturation, Enculturation, Acculturative Stress and Depression**

The risk for experiencing depression appears to increase among this ethnic minority group as they acculturate to the U.S. (Alamilla et al., 2010; Cano & Castillo, 2010; Lorenzo-Blanco, Uger, Baezconde-Garbanati, Ritt-Olson, & Soto, 2012; Torres et al., 2007;). When studying the Latino immigrant community, it is important to take into consideration the obstacles that they face when adapting to a new found country (Lorenzo-Blanco et al., 2012). This is especially true for Latina women compared to Latino men (Lorenzo-Blanco, Uger, Ritt-Olson, Soto, & Baezconde-Garbanati, 2011; Zayas, Lester, Cabassa, & Fortuna, 2005). Research found that Latina women are more likely to attempt suicide than are girls from other ethnicities (Lorenzo-Blanco et al., 2011; Torres et al., 2007; Zayas et al. 2005;). These findings suggested that Latinos may be at higher risk for depression, particularly Latina girls, as they migrate to the U.S.
Two constructs that may expand our understanding on risk factors involved in the development of depression among Latino immigrants are acculturation and enculturation. Acculturation and enculturation are two of the most commonly studied adaptation variables in psychology research (e.g., Castillo et al., 2004; Negy et al., 2014; Schwartz, Unger, Zamboanga, & Szapocznik, 2010; Torres et al., 2007). Acculturation refers to the changes that an individual experiences after migrating to a new country due to the influence of social norms in the host county (Castillo et al., 2004; Negy et al., 2014; Schwartz et al., 2010; Torres et al., 2007). Among Latinos living in the U.S., acculturation is best represented by their ability to adapt and conform to the new culture of the larger population. In this case, it would be the non-Latino White’s culture (Berry, 1997; Negy et al., 2014; Negy, Schwartz, & Reig-Ferrer, 2009; Roccus, Horenczyk, & Schwartz, 2000). By contrast, enculturation is the process where individuals try to maintain their beliefs, customs, and traditions while being exposed to a new country (Cuellar, Siles, & Bracamontes, 2004; Kim, 2007; Lechuga, 2010; Negy 2013;). In the U.S., this phenomenon was examined in the context of how ethnic minorities struggle to retain their heritage from their country of origin while trying to adapt to the U.S. (Alamilla et al., 2010; Castillo et al., 2008; Negy et al., 2014).

Acculturative stress is conceptualized as the stress that an individual may experience due to the process of adapting and adjusting to a new culture (Berry, 1997; Castillo et al., 2004; Negy et al., 2014; Rodriguez, Myres, Mira, Flores, & Garcia-Hernandez, 2002; Torres et al., 2007;). For example, acculturative stress among Latinos living in the U.S. can occur due to failure to learn and understand English (Torres et al., 2007). It is important to acknowledge that acculturative stress may manifest itself differently in each individual; however, recent research
on the subject found a positive correlation between acculturative stress and mental health (Castillo et al., 2004; Negy et al., 2014; Negy et al., 2009; Perez, Voelz, Pettit, & Joiner, 2002). As an example, Driscoll and Torres (2013) conducted a study with a sample of 463 Latinos to test the relationship between acculturation stress and depression. Results showed a positive correlation between acculturative stress and depressive symptoms. Moreover, acculturative stress correlated with multiple psychological mental health issues such depression, anxiety, and eating disorders (e.g. Gil, Wagner, & Vega, 2000; Hovey & Magana, 2002; Perez et al., 2002).

Emerging research now is focusing more on the effects of social pressure to enculturate to one’s own culture, which is known as “enculturative stress”. Cano and Castillo (2010) examined the relationship of acculturation, enculturation, and White attitudinal marginalization with distress among 214 Latina college students. Results showed that a risk factor for distress was enculturation, White attitudinal marginalization, and income levels (Cano et al., 2010). Enculturative stress is very common among the Latino population (Cano et al., 2010; Castillo et al., 2007; Castillo et al., 2008; Negy et al., 2014; Rodriguez et al., 2002; Rodriguez et al., 2013; Yoon et al., 2013). Some research suggested that, when individuals attempt to navigate two cultures, they may experience distress (Castillo et al., 2004; Negy et al., 2014).

**Dominant Group Marginalization and Intragroup Marginalization**

A construct that has been a central focus among Latino immigrants is marginalization. Marginalization is referred to as the process that an individual undergoes when they are pushed aside from the larger group; this is predominantly a social phenomenon by which a minority group is excluded (Branscombe, Wann, Noel, & Coleman, 1993; Castillo et al., 2008; Castillo et
al., 2004; Castillo et al., 2007). Although being isolated from the dominant group (i.e., White Americans) can create much distress, recent finding suggested that being isolated from one’s own heritage cultural group may cause even more distress (Castillo et al., 2008; Castillo, 2009; Llamas & Morgan-Consoli, 2012; Llamas & Ramos-Sanchez, 2013). Latinos living in the U.S. often are told by family, friends, and others within the Latino community what it means to be Latino (Castillo et al., 2008; Llamas et al., 2013; Llamas et al., 2012). Latinos who fail to live up to these expectations may be rejected from their own heritage cultural group regardless of their desire to be a part of that group (Abrams, Marques, Bown, & Henson, 2000; Castillo et al., 2009;). This cultural distancing is best conceptualized by a construct referred to as intragroup marginalization (Castillo et al., 2007; Castillo et al., 2008). It is important to determine the influence of dominant group marginalization and intragroup marginalization on Latino immigrant’s mental health outcomes.

Moreover, intragroup marginalization is referred to the process that an individual undergoes when rejected and isolated by one’s own heritage cultural group due to that individual acculturating to the dominant cultural group (Castillo et al., 2007; Castillo et al., 2008). In this case, it would be Latinos who are acculturating to the White American culture. During this process, an individual experiences interpersonal distancing created by the individuals from one’s own heritage cultural group (Castillo et al., 2008; Llamas et al., 2012). There are many ways in which interpersonal distancing may occur. The most common form of distancing would be social sanctions, which often are manifested by teasing and criticisms (Castillo et al., 2008; Castillo et al., 2009; Llamas et al., 2012). For example, phrases that often are said to Latinos are “You are acting White.” In addition, Latinos often use phrases to describe the individual who is
demonstrating White American values like “coconut,” “brown on the outside,” and “white on the inside” (Castillo et al., 2009; Llamas et al., 2012).

Theoretical/Conceptual Framework

To further understand this phenomenon, researchers must understand early theories on social identity. Social identity theory is defined as an individual’s self-concept that develops from perceived membership of a social group and the emotional significance associated to that membership (Castillo et al., 2009; Tajfel & Turner 1986). Belonging to a social group (e.g., Latino community) provides individuals with a sense of identity and belonging. Members of these social groups are expected to follow certain group norms, which are believed to express important aspects of individuals’ identity.

In addition, social identity theory stated that group members that belong to a social group try to differentiate their own groups from other ethnic groups (Castillo et al., 2008; Llamas et al., 2012; Tajfel & Turner 1986). By creating certain norms, in-groups influence their members to adopt certain behaviors in order to maintain their distinctiveness. When a group’s distinctiveness is threatened, they make attempts to restore their distinctiveness (Jetten, Spears, & Postmes, 2004). One way in which groups do this is by rejecting or intragroup marginalizing members of the group (Castillo et al., 2009). These members often are judged by their own family and friends because they have deviated from in-groups norms (Abrams et al., 2000; Branscombe, Wann, Noel, & Coleman, 1993; Castillo et al., 2009; Marques, Abrams, & Sorodio, 2001).

Connecting Marginalization and Depression
Recent studies sought to investigate the relationship between intragroup marginalization and acculturative stress. Castillo et al. (2008) first explored the concept of intragroup marginalization with a sample of Latino college students. Results showed that intragroup marginalization and family conflict were significant predictors of acculturative stress among Latino college students. Llamas et al. (2012) conducted a similar study by exploring the role of peer support on intragroup marginalization among Latino college students. Results showed that Latino students who experienced intragroup marginalization by Latino peers also experienced high levels of acculturative stress.

As previously mentioned, high levels of acculturative stress predicted levels of depression. Intragroup marginalization may add to acculturative stress, therefore indirectly being a predictor of depression. For example, Cano and Castillo (2013) found that family intragroup marginalization was associated with depressive symptoms among college students of Mexican descent in the U.S. Mexican American students that perceived more distancing by family members were more likely to have acculturative stress. In turn, those students experienced more symptoms of depression. This study was the first study to find empirically links between family intragroup marginalization and depression. Future research should focus on the influence that intragroup marginalization and dominant group marginalization has on developing depression with Latino immigrants.

Present Study

In this study, my aim was to determine if a relation existed between symptoms of depression and other psychological constructs in order to identify risk factors that may lead to
the development of depression among Latino Immigrants. From a clinical perspective, this research may be beneficial by helping others elucidate what might contribute to depressive symptoms among this growing population, which could then create additional considerations in treatment and interventions. To further assist Latino immigrants living in the U.S., counselors must recognize that this population may experience culturally related stressors that may lead to depression. It also is important to be aware of behavioral expectations that an individual’s family and friends might have that may decrease this population’s well-being. Moreover, for some Latino immigrants the adaptation process may be stressful, which, in turn, may trigger negative psychological outcomes (Negy et al., 2014; Gil et al., 2000; Hovey et al., 2002; Perez et al., 2002). It is believed that such outcomes may be influenced by dominant group marginalization, intragroup marginalization, acculturative stress, and social support. Thus, this study will assess these psychological constructs in order to determine the links between symptoms of depression among Latino immigrants.

Hypothesis

It was hypothesized that marginalization by Whites and by Latinos/as would be associated positively with symptoms of depression. This hypothesis was based on previous research that found marginalization by others to be linked with depression (Castillo et al., 2004; Cano et al., 2013; Hiott et al. 2006; Lorenzo-Blanco et al., 2011). It also was hypothesized that acculturative stress would be linked with symptoms of depression. This hypothesis was based on findings from other studies that found acculturative stress to be associated with myriad adjustment difficulties among immigrants (e.g. Albeg et al., 2014; Gil et al., 2000; Hovey et al.,
Finally, it was hypothesized that social support would account for any observed relation between acculturative stress and symptoms of depression. A plethora of studies found that social support from family and friends serves as a buffer against psychological stress (e.g., Garcia et al., 2005; Izzo, Weiss, Shanahan, & Rodriguez-Brown, 2000; Lakey & Orehek, 2011; Kutek, Turnbull, & Fairweather-Schmidt, 2011).
CHAPTER TWO: METHODS

Participants

The sample was comprised of 128 adult Latino immigrants (44 males; 81 females; 3 indicated no gender) living in the greater Central Florida region. To qualify for inclusion, participants had to self-identify as being of Latin American origin, be at least 18 years of age, and be born outside the United States. Regarding Latino subgroup, 51 self-identified as South American (15 Columbians, 15 Venezuelans, 8 Brazilians, 4 Peruvians, 4 Argentinians, 2 Bolivians, and 3 Ecuadorians), 17 as Cuban, 27 as Central American (4 Panamanians, 14 Hondurans, 4 Salvadorans, 1 Belizean, 1 Guatemalan, and 3 Nicaraguans), 3 as Mexican, 15 as Puerto Rican, and 15 as Other (12 Dominican Republican, and 3 did not specify). Puerto Ricans are not immigrants in the U.S. from a legal standpoint (see Arbona & Virella, 2008). However, many Puerto Ricans’ experiences in the United States are similar to those emigrating from other Latin American countries, thereby warranting their inclusion (e.g., speaking Spanish, maintaining interdependent family relations, holding parents and elders in relatively high regard). The average number of years that the participants had lived in the U.S. was 15.37 (SD = 3.98) and ranged from 1 year to 64 years. The average age of the participants was 43.92 years old (SD = 14.97) and ranged from 18 to 89 years of age (compared to a median age of 27.6 years for Latinos in the nation). The majority of participants reported having attended several years of college (M number of years of education = 15.37), were married (72% n = 56.3), and reported identifying their religion as Christian (82 % n = 105) .
Table 1 Descriptive Information on Study Participants (n = 128)

<table>
<thead>
<tr>
<th>Description</th>
<th>Frequency (out of 128)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>34</td>
<td>26.6</td>
</tr>
<tr>
<td>Married</td>
<td>72</td>
<td>56.6</td>
</tr>
<tr>
<td>Separated</td>
<td>4</td>
<td>3.1</td>
</tr>
<tr>
<td>Divorced</td>
<td>12</td>
<td>9.4</td>
</tr>
<tr>
<td>Cohabitated with partner</td>
<td>4</td>
<td>3.1</td>
</tr>
<tr>
<td>Have children</td>
<td>90</td>
<td>70.3</td>
</tr>
<tr>
<td>Immigrated for economic reasons</td>
<td>40</td>
<td>31.3</td>
</tr>
<tr>
<td>Immigrated to join family or friends in the U.S.</td>
<td>41</td>
<td>32</td>
</tr>
<tr>
<td>Immigrated for political persecution</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Immigrated to escape legal or criminal problems</td>
<td>1</td>
<td>.8</td>
</tr>
<tr>
<td>Immigrated for other reasons</td>
<td>33</td>
<td>25.8</td>
</tr>
<tr>
<td>Employed in the U.S.</td>
<td>109</td>
<td>85.4</td>
</tr>
<tr>
<td>Salary less than 10,000</td>
<td>17</td>
<td>13.3</td>
</tr>
<tr>
<td>Salary between 10,000-20,000</td>
<td>17</td>
<td>13.3</td>
</tr>
<tr>
<td>Salary between 21,000-30,000</td>
<td>19</td>
<td>14.8</td>
</tr>
<tr>
<td>Salary between 31,000-40,000</td>
<td>18</td>
<td>14.1</td>
</tr>
<tr>
<td>Salary between 41,000-50,000</td>
<td>14</td>
<td>10.9</td>
</tr>
<tr>
<td>Salary greater than 50,000</td>
<td>30</td>
<td>23.4</td>
</tr>
</tbody>
</table>

Data Collection

Undergraduate students enrolled in an upper-division course in cross-cultural psychology were asked to locate potential participants as partial credit for research experience in cultural diversity and assessment. Specifically, student recruiters were instructed to seek volunteers who met study criteria from places within the general community, such as churches, school events, private gatherings, and so on. All student recruiters were directed to seek broad representation of non-U.S. born Latinos across diverse socioeconomic strata and were prohibited from recruiting members of their own immediate family but were free to draw on their own personal and organizational contacts in the community. After attending a mandatory 30-minute seminar on ethics when conducting research with human participants, student recruiters were given a set of
questionnaires and a stamped, researcher-addressed envelope to be given to a participant. Participants were instructed to return completed questionnaires directly to the supervising researcher via U.S. mail. Participants were not provided any feedback regarding their responses to the questionnaires, but were encouraged to contact the supervising researcher if they had any questions or concerns. No compensation was provided to participants for completing the questionnaires. In addition, I also collected data from Latino immigrants in a similar fashion to how student recruiters collected data. "I collected data from 26 participants”.

**Measures**

Participants completed the following instruments:

*Demographic Sheet.*

In addition to assessing routine demographic information about participants (e.g., age, gender, civil status, education level), this sheet assessed countless information related to their immigration experiences. Examples include, but are not limited to: age when immigrated, years having lived in the U.S., family status pre- and post-deportation, and employment status.

*Beck Depression Inventory II (BDI-II Beck et al., 1996)*

To assess participant’s level of depression, the Beck Depression Inventory was used (BDI-II; Beck, 1996). The BDI-II is a widely used 21-item questionnaire measuring depression. Participants will respond to the questions using a 4-point scale (0-3). Guidelines to evaluate scores are minimal (0-13), mild (14-19), moderate (20-28), and severe (29-63). Beck et al. (1996) reported a strong correlation with depression, anxiety, and hopelessness. An example
question is “Worthlessness?” (e.g., 0 I do not feel I am worthless, 1 I don’t consider myself as worthwhile and useful as I used to, 2 I feel more worthless as compared to other people, and 3 I feel utterly worthless). The BDI-II had acceptable reliability and validity in a previous study (see Beck et al., 1996). Based on the current sample of participants, the BDI-II obtained a reliability estimate (Cronbach α) of .86.

*Acculturation Rating Scale for Mexican Americans ARSMA-II Modified (Cuéllar et al., 1995)*

To access the level to which participants perceived interpersonal distancing caused by Whites and Latino family and friends, the Acculturation Rating Scale for Mexican Americans II Modified ARSMA-II was administered (Cuéllar et al., 1995). The ARSMA-II consists of two subscales that measure perceived dominant group marginalization and intragroup marginalization. The first six items measured dominant group marginalization. An example question is “I have difficulty accepting some ideas held by Whites.” The remaining six items measured intragroup marginalization. An example question is “I have difficulty accepting some values held by some (Latinos/as ethnicity).” Based on the current sample of participants, the ARSMA-II obtained a reliability estimate (Cronbach α) of .90 for dominant group marginalization and .82 for intragroup marginalization.

*Acculturative Stress and Enculturative Stress (MASI; Rodriguez et al., 2002)*

To assess the extent to which participants experienced acculturative stress, they completed the Multidimensional Acculturative Stress Inventory (MASI; Rodriguez et al., 2002). This 36-item scale contains 4 subscales: Spanish Competency Pressures (SCP), English Competency Pressure (ECP), Pressure to Acculturate (PTA), and Pressure Against Acculturation
(PAA). The MASI incorporated items dealing with pressures originating from White American culture and competency in the English language. An example item is “It bothers me that I speak English with an accent.” Other items reflect additional acculturative stress originating from one’s own heritage cultural group and from competency in Spanish language. An example item is “I don’t speak English or I don’t speak it well” and “I feel pressure to learn Spanish.” Pressure to Acculturate subscale assessed the extent to which participants experience stress related to pressure from family and friends to maintain their Latino cultural values and practices (MASI; Rodriguez et al., 2002). This subscale consists of seven items originally intended to assess the degree to which Latinos in the U.S. feel pressured to adopt and conform to mainstream U.S. cultural norms. The wording of the 36 items was modified to make the items applicable to all Latinos (not just those of Mexican ancestry). Items are responded to using a 5-point Likert-type scale; response options range from 1 (not at all stressful) to 5 (extremely stressful). Responses to items are averaged; thus, scores range from 1 to 5, with higher scores reflecting higher acculturative stress and enculturative stress. The MASI had acceptable reliability and validity (see Rodriguez et al., 2002). Based on the current sample of participants, the MASI total score obtained a reliability estimate (Cronbach α) of .90. The additional subscales SCP, ECP, PTA, and PAA obtained a reliability estimate (Cronbach α) of .72, .91, .78, and .87, respectively.

Acculturation and Enculturation (SMAS; Stephenson 2000)

To assess participants’ levels of acculturation to the U.S. culture and enculturation to their country of origin, they completed the Stephenson Multigroup Acculturation Scale (SMAS; Stephenson, 2000). The SMAS contains 32-items (16 assessing acculturation, 16 assessing enculturation). Items are responded to using a 4-point Likert-type scale; response options range
from 1 (false) to 4 (true). The SMAS yields scores on two subscales: The dominant-society immersion subscale (i.e., acculturation) and the ethnic-society immersion subscale (i.e., enculturation). Responses to subscale items are averaged; thus, scores range from 1 to 4, with higher scores reflecting higher acculturation toward either the U.S. or county of origin, respectively. The SMAS had acceptable reliability and validity in a previous study (see Stephenson, 2000). Based on the current sample of participants, the SMAS obtained a reliability estimate (Cronbach $\alpha$) of .51 (acculturation toward the U.S.) and .69 (enculturation towards county origin), respectively. I note here that the reliability estimate for the dominant-society immersion subscale (.51) is unacceptable against traditional psychometric standards.

**Social Support (MSPSS; Dahlem, Zimet, & Walker, 1991)**

To assess participants’ perceptions of social support from friends, family members, and significant others, they completed the *Multidimensional Scale of Perceived Social Support* (MSPSS; Dahlem, Zimet, & Walker, 1991). The MSPSS consists of 12-items. Each item is responded to using a 7-point Likert-type scale, with options ranging from 1 (very strongly disagree) to 7 (very strongly agree). Responses to items are averaged; thus, scores range from 1 to 7, with higher scores reflecting more perceived social support. Although scores can be derived for each source of social support (i.e., from friends, family, and significant others), a total social support scores was used and was derived by adding and averaging responses to all the items. The MSPSS had acceptable reliability and validity in a previous study (see Dahlem et al., 1991). Based on the current sample of participants, the MSPSS obtained a reliability estimate (Cronbach $\alpha$) of .79.
CHAPTER THREE: RESULTS

Descriptive Information

Table 2 shows the means and standard deviations of critical study variables. Participants’ average responses to the symptoms of depression items ($M = .40; SD = .32$) corresponded to the response option of “I do not feel…(sad; discouraged about my future; etc.),” suggesting that, as a group, this sample of Latino immigrants are not manifesting symptoms of depression. Their average responses to the marginalization by Whites items ($M = 2.02; SD = .70$) corresponded to the response option of “Very little or not very often,” suggesting that, as a group, participants perceive they are minimally pressured by Whites to acculturate toward the larger, dominant culture. Their average responses to the marginalization by Latinos items ($M = 2.06; SD = .68$) also corresponded to the response option of “Very little or not very often,” suggesting that, as a group, participants perceived that they are minimally pressured by Latinos to enculturate toward the Latino culture. Their average responses to the acculturative stress items ($M = 1.57, SD = .57$) hovered between the two response options of “Not at all stressful” and “Somewhat stressful,” suggesting that, as a group, participants perceived themselves only to be minimally or mildly distressed over the pressures to acculturate. Finally, their average responses to the social support items ($M = 5.64; SD = 1.25$) hovered between the response options of “Agree” and “Strongly agree,” suggesting that, as a group, participants perceived that they have an adequate social support network on which they can rely during times of difficulties.
Table 2 Standard Deviations of Critical Study Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms of Depression&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.40</td>
<td>(.32)</td>
</tr>
<tr>
<td>Marginalization by Whites&lt;sup&gt;b&lt;/sup&gt;</td>
<td>2.02</td>
<td>(.70)</td>
</tr>
<tr>
<td>Marginalization by Latinos/as&lt;sup&gt;b&lt;/sup&gt;</td>
<td>2.06</td>
<td>(.68)</td>
</tr>
<tr>
<td>Acculturative Stress&lt;sup&gt;c&lt;/sup&gt;</td>
<td>1.57</td>
<td>(.57)</td>
</tr>
</tbody>
</table>

Notes:

<sup>a</sup> Symptoms of depression measured by the Beck Depression Inventory II (Beck et al., 1996)

<sup>b</sup> Marginalization by Whites and Latinos/as measured by the Acculturation Rating Scale for Mexican Americans—Revised (ARMSA; Cuellar et al., 1995)

<sup>c</sup> Acculturative stress measured by the Multidimensional Acculturative Stress Inventory (MASI: Rodriguez et al., 2002)

**Hypothesis Testing**

Contrary to hypothesis one, marginalization by Whites and by Latinos/as was not associated significantly with symptoms of depression ($r_s = .16$ and $-.02$, $p_s > .05$, respectively).

In support of hypothesis two, acculturative stress correlated significantly with symptoms of depression ($r = .33$, $p < .01$). Hypothesis three stated that social support would mitigate the association between acculturative stress and symptoms of depression. To test this, I first established that social support correlated significantly with symptoms of depression ($r = -.39$, $p < .001$). Next, a partial correlation analysis was conducted to determine the relation between acculturative stress and symptoms of depression while partialing social support. The resulting
correlation ($r = .30, p < .01$) suggested that social support did not account for the observed association between acculturative stress and symptoms of depression. I note that the difference is the two $r$ values (.33 vs. .30) was not statistically significant (Fisher's $z$-to $r = .26 p < .05$).

**Follow-up Analyses**

To further examine the relation between acculturative stress and symptoms of depression, a standard multiple regression was performed on the data. The criterion variable was symptoms of depression. The predictor variables were the four acculturative stress subscales (English-competency pressure [ECP], Spanish-competency pressure [SCP], Pressure to acculturate [PTA], and Pressure against acculturating [PAA]). Taken together, the four acculturative stress subscales significantly predicted symptoms of depression ($\text{Multiple } R^2 = .19, F [4, 90] = 5.25, p < .01$). The only subscale that achieved significance was PTA ($B = .35, t = 2.76, p < .01$). The more participants perceived pressure from others to acculturate toward the larger, dominant culture, the more symptoms of depression they reported.
CHAPTER FOUR: DISCUSSION

The goal of this study was to determine the factors that would correlate with depressive symptoms among Latino immigrants in the U.S. It was hypothesized that marginalization by Whites and by Latinos/as would be associated positively with symptoms of depression. The results did not support the hypothesis. Marginalization by Latinos/as bore no relation with symptoms of depression. There was only a trend between marginalization by Whites and symptoms of depression that approached statistical significance ($p = .08$). Given that past research suggested that marginalization by both the dominant group and one’s own ethnic group is associated with pejorative outcomes (e.g. Castillo et al., 2007; Castillo et al., 2008; Castillo et al., 2004), these findings were somewhat difficult to explain. This sample of Latino immigrants had lived in the U.S., on average, for many years (approximately 24 years), and were, on average, better educated than most Latino immigrants in the U.S. (approximately 15 years of education); thus, it is possible that those demographic characteristics play a role in minimizing any adverse effects of marginalization by other social groups. In addition, as a group, this sample of Latino immigrants was not manifesting high levels of depression. This could have contributed to these findings as well.

Consistent with previous research (Driscoll et al., 2013; Gil et al., 2000; Hovey et al., 2002; Negy et al., 2014; Perez et al., 2002), the second hypothesis was supported. Acculturative stress was associated significantly with symptoms of depressions. However, the findings did not support the third hypothesis that perceived social support would mediate the relationship between acculturative stress and high depressive symptoms. These findings demonstrated the significant impact acculturative stress has on Latino immigrants in the U.S. Although Latino
immigrants often are exposed to an array of psychosocial stressors that influence mental health outcomes (e.g., discrimination, income status, and separation from friends and family), these finding suggested that acculturative stress is a risk factor for the development of depression among Latino immigrants, even after accounting for possible mitigating variables (e.g. [lack of] social support, education, etc.). In addition, acculturative stress has been correlated to the overall psychological health of Latinos, making it a key component to the psychological well-being of Latino immigrants in the U.S. (Castillo et al., 2004; Negy et al., 2009; Negy et al., 2014; Perez, Voelz, Pettit, & Joiner, 2002). Being able to understand the significance of culture and maladjustment among Latino immigrants is critical in preventing depression and other mental health issues in the future.

Moreover, as a whole, the sub-components of acculturative stress (English Competency Pressure, Spanish Competency Pressure, Pressure to Acculturate, and Pressure against Acculturating) were significantly associated with depressive symptoms. However, the follow up analyses contradicted previous research (Gil et al., 2000; Hovey et al., 2002; Perez et al., 2002; Torres et al., 2007) on the particular type of acculturative stress that contributed to the development of depression. Among this sample of participants, the only subtype of acculturative stress that by itself predicted symptoms of depression was pressure to acculturate. The more that participants felt that they were being pressured from others to acculturate towards the dominant group’s (e.g. Whites’) culture, the more symptoms of depression they reported. It is difficult to explain why pressure to function in either language did not predict individually symptoms of depression. Perhaps that lack of finding was due to most participants reporting being comfortable speaking both languages.
The results of this study, in a modest way, build on prior research (Gil et al., 2000; Hovey et al., 2002; Perez et al., 2002; Torres et al., 2007) in documenting a link between perceived pressure to acculturate and symptoms of depression. Being able to understand the significance of culture and maladjustment among Latino immigrants may assist in creating interventions to prevent the development of depression and other mental health issues in the future. For example, clinicians, counselors, or clergy working with distressed Latino immigrants could help them understand the unique situation in which they find themselves. Specifically, they now live in a host country and in various ways will need to modify their approach to myriad situations to be in line with customs consistent with the larger, U.S. culture (Negy et al., 2009). Validating Latino immigrants’ struggles to establish a life in a new culture, reframing stressful situations to acquire a new language as an opportunity for acquiring new skills rather than a punitive burden), and helping them to de-personalize challenges (i.e., helping them understand that having to modify some ways of doing things is an artifact of immigration, rather than acts of discrimination)—all may help distressed immigrants adapt more successfully to life in the U.S.

As addressed above, depression is a severe mood disorder that may be influenced by difficulties related to culture and acculturation. Distinct etiological factors may contribute to symptoms of depression as a function of ethnic group membership, including immigration status (Torres et al., 2007). Moreover, symptoms of depression may manifest themselves differently among diverse groups and even be conceptualized distinctly among subgroups of Latinos.

Limitations
This study had limitations that should be noted when considering the results. First, the data collected were correlational. Thus, it is impossible to know either the causal order of the observed correlations or what might have caused such correlations. In addition, there was no comparable control group of participants (e.g., U.S.-born Latinos). Having had a group of U.S.-born Latinos in the study might have elucidated the influences of immigration versus being a minority on symptoms of depression. Moreover, I did not solicit information of the legal status of the participants; perhaps findings may have been different as a function of legal status. Another limitation relates to the convenience sample of participants in this study. Being somewhat more educated than most Latino immigrants in the U.S. may have influence the present results in some way. Also, on average, this sample had lived in the U.S. for many years (approximately 24 years) and was able to complete the questionnaires in English. Thus, this sample of Latino immigrants should not be construed as representative of most Latino immigrants in the U.S. currently.

Implications and Future Research

The findings of this study have several implications for mental health professionals treating Latino immigrants, particularly when dealing with Latino with depression. It is important to be aware of the role acculturative stress may play on the overall mental health of Latinos living in the U.S. More importantly, this study supported previous findings and demonstrated the potential consequences of the cultural adaptation process among Latino immigrants. Future research should include a broad array of Latino subgroups (including documented vs. undocumented) in order to better determine possible nuanced differences in etiology, symptom manifestation, and treatment options for diverse Latino populations. I
propose more research be conducted to examine relations between psychological disorders (e.g. depression, anxiety) and cultural adaption (i.e., acculturation). Latinos whom seem to be experiencing acculturative stress may be targeted by professionals for intervention that may help prevent them from developing severe depression. Finally, I suggest that future research be conducted to delineate how Latinos, and particularly Latino immigrants, conceptualize depression as well as identify symptoms that Latinos believe reflect depression in order to assure that mental health professionals accurately diagnose and treat Latinos suffering from depression.

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