DISENTANGLING THE INTERACTION EFFECTS BETWEEN BICULTURAL

STRESS AND SELF-ESTEEM ON DEPRESSION AMONG MEXICAN AMERICAN

ADOLESCENTS

A Dissertation

by

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ABSTRACT

Using the diathesis stress model, this study examined the interactions effects between bicultural-specific stressors and self-esteem on depressive symptoms for 191 Mexican American high school students from south Texas. In addition, this study used a multi-group path analysis to evaluate the buffering role of self-esteem in the association between aspects of bicultural stress and depressive symptoms experienced by Mexican American adolescent boys and girls. Results of the analysis sought to reveal whether gender differences exist when examining the bicultural stress-depression relationship and the self-esteem buffering hypothesis.

The findings suggest that self-esteem did not significantly buffer the effect of bicultural stressors on depressive symptoms for these adolescents. Additionally, the buffering effect of self-esteem on bicultural stressors and depressive symptoms did not prove to be stronger for boys as hypothesized. However, this study did find that monolingual and peer stress was more significantly associated with depressive symptoms in boys, whereas family stress was more significantly related to depressive symptoms in girls. Discrimination stress was not found to be significantly related to depressive symptoms in Mexican American boys or girls. The results are discussed based on their application to future research studies and development of intervention and prevention programming adapted for Mexican American adolescents.

DEDICATION

I would like to dedicate this dissertation and everything I do to my parents, Catalina B. Rodriguez and Alfredo M. Rodriguez. You were always there to provide me with unconditional love, support, and encouragement especially during the challenging and humbling moments throughout my graduate education. Thank you for showing me what it means to be resilient and to persevere despite any adverse circumstances that come my way. You are two of the strongest, most loving, and honorable individuals and I am truly blessed to have had you both by my side as I pursued my dream. Thank you for your patience, trust, and faith in me Mom and Dad. I love you with all of my being.

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CHAPTER I

INTRODUCTION

Many Latino adolescents experience a variety of stress in school above and beyond typical school stressors such as homework, school performance, teacher-student relationships, and peer problems (Dumka, Gonzales, Bonds McClain, & Millsap, 2013). Scholars have noted that some Latina/o[1] adolescents experience stressors related to being bicultural, such as family stressors, discrimination stressors, monolingual stressors, and peer stressor (Romero & Roberts, 2003). Oftentimes these bicultural stressors lead to depressive symptoms in Latina/o adolescents (Romero & Roberts, 2003). This has become an increasingly important issue given these Latina/o adolescents eminent risk for struggling with issues related to endorsing symptoms of depression. According to the 2010 Risk Behavior Surveillance System (as cited in Piña-Watson, 2014), Latina/o adolescents endorsed higher percentages (i.e., 41.4% Latina girls, 24.4% of Latino boys, 31.4% of African American girls, 18% of African American boys, 34.3% of White girls, and 20.7% of White boys) of feelings of subjective hopelessness and sadness. This study emphasizes that Latina/o youth are particularly more at risk of struggling with depressive symptoms in comparison to their ethnic counterparts.

This is a concern for society because depressive symptoms are associated with suicidal ideations, drug use and educational attainment (Roberts & Chen, 1994; Hallfors et al., 2004; Fletcher, 2008). There is an increasing need in research to examine possible factors that may help to prevent depressive symptoms in Latina/o adolescents. Although

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some studies with predominantly white (non-Hispanic) adolescent populations have identified self-esteem as a buffer, few have sought to examine how self-esteem works specifically for Latina/os. In addition, even fewer studies have explored if bicultural stressors and self-esteem are experienced differently across gender for this population. As such, this study will examine components of bicultural stress (family stressors, discrimination stressors, monolingual stressors, and peer stressors) and its association to depressive symptoms in Latino boys and girls as well as how self-esteem buffers the relationship. In addition, this study will examine whether there are specific aspects of bicultural stress that self-esteem may buffer in depressive symptoms differently for participants.

Self-esteem is a construct that has been examined in numerous studies, particularly amongst the adolescent population because it serves an influential role in their development (Phinney, Cantu, Kurtz, 1997). Studies differ in how self-esteem is conceptualized. In this particular study, we conceptualize self-esteem as a unidimensional construct that assesses an individuals' global evaluation and attitudes toward the self (Gray-Little, Williams, & Hancock, 1997). Self-esteem focuses on the evaluations that a person has towards themselves, their capabilities and their faults (Gray-Little, Williams, & Hancock, 1997). It can often be categorized into dichotomous categories, which include high and low self-esteem. Individuals with higher self-esteem levels will often demonstrate more confidence in their own merits and have self-evaluations that are more positive. In contrast, individuals with low self-esteem will have a lower self-regard and may not endorse a positive outlook about themselves, their

abilities, or their worth (Gray-Little, Williams, & Hancock, 1997). Self-esteem encompasses one's approving attitudes and beliefs as they evaluate how they feel about their individual skills, capabilities, and overall self-worth (Heatherton & Wyland, 2003).

Self-esteem, positive feelings and thoughts about self-worth, is widely regarded as an important element to examine in relation to adolescent wellbeing (Bean & Northrup, 2009). It is a construct that researchers are interested in investigating because it has been found to serve as a protective factor that is associated with positive mental health outcomes in the general population. For example, having a high self-esteem provides several benefits including feeling good about oneself and presumably being able to lead a psychologically happy life (Heatherton & Wyland, 2003). Self-esteem could increase the likelihood that an individual develops the ability to adjust to their environment and maintain strong psychological wellbeing. In addition, it could contribute to the development of resiliency in that individuals with higher self-esteem are more likely to cope better when faced with challenges and negative feedback (Heatherton & Wyland, 2003).

Self-esteem can also serve a critical role during the adolescent stage of development because how adolescents evaluate themselves can affect them as they begin to establish their identity and understand how they fit within their bicultural world. Specifically, Latina/o adolescents' self-esteem levels have been associated with their ability to cope with trying to acculturate between different cultures and multiple contexts (Umaña-Taylor, 2004). Another study suggested that having low self-esteem is associated with negative outlook of themselves and others, as well as loneliness,

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isolation, and depressive symptomology (Heatherton & Wyland, 2003). Thus, self-esteem levels appear to interact with mental health outcomes in the Latina/o population.

As the prevalence of health concerns rises amongst the growing Latina/o adolescent population, it is important to further examine the relationship between self-esteem and depressive symptomology for this minority group (Umaña-Taylor & Updegraff, 2007). Individuals are considerably vulnerable during adolescence as they are beginning to develop and understand their roles. Thus, individuals that do not endorse the belief that they are worthy or have the ability to do well may be more susceptible to having lower levels of psychological well being and mental health (David, Okazaki, & Saw, 2009). Self-esteem and depression are interrelated in that higher self-esteem levels seem to have a protective influence on the number of depressive symptoms reported by an individual (Umaña-Taylor & Updegraff, 2007). Individuals that have a higher self-esteem may have less difficulty in trying to overcome or minimize their depressive symptoms. Similarly, children with lower general self-esteem also tend to report higher depression levels (Asarnow, Carlson, & Guthrie, 1987). As previously mentioned, self-esteem has been found to be associated with mental health outcomes within the Latina/o population. Specifically, self-esteem was found to have a significant negative relation with Latina/o adolescents' depressive symptoms (Umaña-Taylor & Updegraff, 2007). Latina/o adolescents that endorse higher levels of self-esteem appear to report more positive mental health outcomes or symptomology.

Although studies support the relationship found between self-esteem levels and depression, research has focused on examining this relationship within the general

adolescent population with mixed results pertaining to gender differences. However, it is imperative to evaluate the differences between adolescent boys and girls to further understand how their reported self-esteem levels affect the depressive symptoms endorsed. For example, studies have shown that during adolescence, girls and boys self-esteem levels begin to decline as a result of new salient issues and challenges (Quatman & Watson, 2001). This suggests that young boys and girls' self-esteem develops differently and henceforth may have varying buffering effects.

One consistent pattern that has become more prevalent when exploring the influential role of self-esteem during adolescence is that boys typically tend to report higher levels of self-esteem (Quatman & Watson, 2001). Furthermore, it appears that boys are able to continue to endorse higher self-esteem levels as they transition into adulthood in comparison to their female counterparts (Quatman & Wilson, 2001). As suggested by Quatman and Watson (2001), self-esteem is comprised of several components or domains each of which may be contributing to these gender disparities in self-esteem levels. Thus, it is important to examine the way that boys and girls develop their self-esteem to gain a deeper understanding of how this may be affecting their ability to cope with depressive symptoms.

For example, Quatman and Watson's study (2001) found that boys scored higher on several of the global self-esteem components, such as personal security, satisfaction with family and home life, satisfaction with physical appearance and athletic competence. This study also found that adolescent boys outperformed girls in the psychological permeability domain, which suggests that boys reported being less likely

to be overly affected by their feelings (Quatman & Watson, 2001). This finding would suggest that male adolescents might be less likely to endorse depressive symptoms when they are more pleased with themselves and have a higher regard or self-evaluation. Overall, this study suggests that adolescent boys feel more confident as they face adversity whereas girls feel more psychologically vulnerable to these challenges during high school (Quatman & Watson, 2001).

Latina adolescents have been found to have lower self-esteem levels compared to their male counterparts (Phinney, Cantu, & Kurtz, 1997). It is suggested that this may be in part because Latinas are targets of discrimination that encounter the devaluation of gender-specific traits and characteristics, which may then challenge how they perceive themselves (Panchanadeswaran & Dawson, 2011). Latina adolescents tend to gain much of their identity and recognition based upon their standing within their interpersonal relationships with family as well as peers (Hankin, Mermelstein & Roesch, 2007). This may then expose Latinas to considerable conflict relating to their self-esteem as they attempt to navigate the external evaluations and adjust to differing customs, norms, and experiences within their bicultural world (Panchanadeswaran & Dawson, 2011). Latinas self-esteem levels are shaped more by external factors in comparison to Latino boys, who gain much of their self-esteem from their own internal evaluation and assessment of their skills and competencies. A Latina adolescent with higher self-esteem may be more likely to cope with symptoms of depression since they endorse a positive outlook of themselves based on evaluations that they have received from interactions with others. In contrast, this would suggest that a Latina with low self-esteem might be more prone to

subsequent depressive symptoms because they are influenced by experiences of adversity and stress.

It is well known that increased stress levels are related to depressive symptoms in adolescents (Compas, Orosan & Grant, 1993). When an individual is feeling overwhelmed by various stressors and is uncertain of how to cope, they may be more likely to begin to endorse symptoms of depression including feeling hopeless and having a lack of energy to continue to push forward despite facing times of adversity (Compas, Orosan, & Grant, 1993). For Latina/o adolescents, bicultural stress is very relevant because it helps to bring forth understanding into the types of issues being faced by these high school students as they strive to manage both their academic culture and their at-home culture (French & Chavez, 2010). Latina/o adolescents are treading a fine line between their traditional cultural values as well as the set of values placed on them from their academic culture. In this study, we define bicultural stress as the amount of distress being reported by an individual as they try to acculturate to the stressors within a bicultural environment such as discrimination and monolingual stressors, intergeneration gaps, and feeling pressured to conform to the norms of the Latina/o group (Romero & Roberts, 2003). As one attempts to manage the demands from these bicultural stressors, Latina/o adolescents become considerably more at risk of feeling depressed because they are having such difficulty adapting to the responsibilities of both environments. Previous research has demonstrated that ethnicity-related stressors are negatively associated with the well being of Latino/a students (Cano, Castillo, Castro, de Dios, & Roncancio, 2013; Crockett et al., 2007; French & Chavez, 2010). Specifically, it has been suggested that

discrimination experiences and fear of confirming stereotypes were two ethnicity-related

stressors that negatively influence Latino/a student's well being (French & Chavez,

2010).

When evaluating a complex construct such as bicultural stress, it is important to

examine each of the different components of this multidimensional variable. In doing so,

we will be able to gain more of an understanding of how each of these bicultural-specific

stressors negatively affects the mental well being of Latino/a adolescents and contribute

to their feelings of depression.

According to Romero and Roberts (2003), the first component of bicultural stress

is centered more on family stressors within a bicultural context. This dimension of

bicultural stress is oriented more towards gaining insight into the responsibilities placed

on Latina/o adolescents as they are interacting with their families. For example, often

times an adolescent of Latina/o descent will have to fulfill their family obligations, help

their parents in the U.S., and feel responsible for translating information for parents that

may not be as fluent in a secondary language (Romero & Roberts, 2003) In addition, this

dimension of bicultural stress also tries to evaluate whether an adolescent feels that they

are challenged by family relatives to endorse family traditions as well as be respectful to

elders. This component is considerably focused on the acknowledging the stress that

comes from managing family responsibilities and expectations.

The second dimension of bicultural stress relates to discrimination stressors that

the student may be experiencing (Romero & Roberts, 2003). For example, the items are

more oriented towards understanding if a student has ever experienced discomfort about

other cultures or if they find it difficult to understand the values and viewpoints of additional cultures (Romero & Roberts, 2003). This component seeks to gain insight into the type of concerns a Latina/o adolescent may be experiencing as an individual managing two cultural backgrounds.

The third component of bicultural stress encompasses monolingual stressors. This dimension of bicultural stress focuses on assessing a student's beliefs about how others perceive their communication skills (Romero & Roberts, 2003). In addition, it also focuses on understanding whether a Latina/o adolescent experiences distress because of feeling insecure about only speaking one language (Romero & Roberts, 2003). It seeks to assess how pressured an adolescent feels to learn and improve their ability to speak Spanish fluently (Romero & Roberts, 2003).

Finally, the last component of bicultural stress focuses on peer stressors experienced by Latino/a adolescents. This dimension focuses on assessing a Latina/o adolescents' sense of belonging with peers of their same ethnicity (Romero & Roberts, 2003). According to Romero and Roberts (2003), this component seeks to gain insight into how accepted the adolescent feels by their peers or whether it is particularly difficult for them to be avoid being stereotyped as "acting white."

There have been mixed findings in the literature as to whether gender differences in bicultural stressors exist. For example, Chao (2006) found that Mexican American girls often report more language brokering since their parents are more likely to choose them to serve as a translator. Another study found a similar finding and suggested that language brokering is likely to be considered a gendered activity, as Latina adolescents

are reporting more experiences in brokering than Latino males (Buriel, Perez, Ment, Chavez & Moran, 1998). These studies suggest that this specific bicultural stressor may not be as prominent for Latina girls considering that they are more frequently given the responsibility to help translate for their parents. Additionally, Latino boys may feel more pressured to become more fluent given that they may not have as much exposure to practicing language brokering as their female counterparts.

According to Ng (1996), research has also shown that family stressors tend to impact the mental health of Latina/o adolescents. Often times, there can be generational conflicts within Latina/o families as there begins to be discrepancies on cultural values and traditions. For example, first generation Mexican American adolescents may endorse higher levels of respect for their parental authorities in contrast to second and third generation adolescents who tend to not usually endorse the same levels of conservative autonomy (Love & Buriel, 2007). It is suggested that when adolescents move through the acculturative process they can begin to resemble their European American mainstream peers, which can potentially cause conflict with the traditional expectations of their parental figures (Love & Buriel, 2007). Additionally, this study discusses how the differences in the gender role socialization process for Latino boys in comparison to Latina girls can also contribute to gender differences in relation to family stress. Love and Buriel (2007) suggest that girls are more likely to be encouraged to dedicate time to assisting their parents and their male counterparts are more likely to receive more privileges and freedoms outside of their familial obligations. Correspondingly, this is likely to contribute to higher levels of family stress that they

experience when trying to navigate more strict family obligations and perceived gender role expectations compared to their male counterparts.

Similarly, another study found that there is an increase in rate of perceived discrimination among the younger Latino males, suggesting that they may be more vulnerable and sensitive to negative encounters (Perez, Fortuna, & Alegria, 2008). This suggests that young Latinas are reporting fewer experiences of discrimination than Latina/os and may not be as influenced by this component of bicultural stress.

As girls tend to be more relational beings in contrast to their male counterparts, it is anticipated that there may be gender differences in the experience of peer stress. According to Crockett et al. (2007), it is suggested that individuals with parents who have immigrated can feel conflicted between the opposing values of their parents and their peers. Mena et al. (as cited in Crockett et al., 2007) discusses the turmoil and cultural self-consciousness that individuals can feel as they work to become accustomed to the values and practices of the dominant culture while navigating their own value systems. One study done on predominantly bilingual first generation Mexican American adolescents found that boys endorsed higher degrees of acculturative stress than girls, which was found to be positively associated with increased social acceptance levels (Weisskirch & Alva, 2002). This suggests that boys who perceive themselves as "popular" may experience an internal conflict as there is increased discomfort with potentially being evaluated as they engage in culturally expected behaviors such as language brokering (Weisskirch & Alva, 2002). In contrast, a study has shown how Latina adolescents typically need to engage in strategies to negotiate and navigate their

environment (Denner & Dunbar, 2004). Denner and Dunbar (2004) discuss the struggle that Latina teenagers experience as they navigate overprotective family contexts while also assuming the role of being a protector of others involved in their lives. This study highlights the unique experiences of Latina girls having to move in and out of perceived gender roles depending on the environmental context and their relationships, which can lead to increased peer stress as they attempt to accommodate social expectations of their friends.

The diathesis-stress model suggests that individuals who have low self-esteem and are enduring stressful life events may be more prone or at risk of developing depressive symptoms (Orth, Robins, & Meier, 2009). It is suggested that because these individuals have lower self-esteem, they may not have developed a substantial amount of coping skills to overcome difficult or stressful life challenges (Orth, Robins, & Meier, 2009). Therefore, these individuals may be at a greater likelihood of developing depression because they will be more susceptible to the negative consequences of enduring a stressful event. However, this model also suggest that individuals that demonstrate high levels of self-esteem will be less vulnerable to these negative effects because they may possess the skills and resources to cope with life's challenges (Orth, Robins, & Meier, 2009). It is important to clarify that this study seeks to examine how self-esteem buffers the relationship between stress and endorsement of depressive symptoms given that self-esteem can serve as a protective factor and is typically associated positive mental health outcomes, ability to adjust to an environment, and cope with adversity better (Umaña-Taylor, 2004; Heatherton & Wyland, 2003).

Numerous studies have sought to examine the diathesis-stress model of depression. However, there have been inconsistent findings looking at how self-esteem buffers the relationship between stressful life events and depressive symptoms. Four studies did confirm the hypothesis interaction that individuals with higher self-esteem levels would be less prone to the effects of stressful events on depression (Orth, Robins, & Meier, 2009).

Ralph and Mineka (1998) conducted a study with 141 students to examine the interaction effects between attributional style, self-esteem and nonspecific depression and anxiety. The study found that the interaction between pessimistic or negative attributional style in students and low self-esteem levels was associated with higher distress levels and anxiety (Ralph & Mineka, 1998). This study supports the hypothesis that lower self-esteem levels can influences one's vulnerability and susceptibility to increased distress levels.

Another study conducted with undergraduates, sought to examine the association between stable attributional styles and low self-esteem levels, and how it interacts with an examination outcome to predict depressive reactions (Metalsky, Joiner, Hardin, & Abramson, 1993). The results depicted that students' immediate depressive reactions were predicted by the grade that they got on their exam (Metalsky et al., 1993). In addition, Metalsky et al. (1993) found that attributional style and negative outcome on an exam interacted together to predict depressive reactions in students. Furthermore, the study found support for the self-esteem theory in that enduring depressive symptoms in

students were predicted by the interaction between a student's low self-esteem, attributional style, and failure outcome on exam.

Abela (2002) also conducted a study to test the diathesis-stress model and self-esteem theory of depression. This study surveyed 136 high school seniors that were applying for early admission into college. The results of this study found that depressogenic inferential styles and lower self-esteem levels interacted to predict enduring depressive reactions amongst these adolescents (Abela, 2002). This study provides support for the diathesis-stress theory with this population.

Fernandez, Mutran, and Reitzes (1998) also attempted to test the diathesis stress theory by examining if social support and self-esteem would moderate the relationship between stressful life events and depressive symptoms amongst 728 full-time working men and women. Analyses found that satisfying social support relationships and self-esteem buffered the impacts of stressful events (Fernandez et al., 1998). This study suggests that a positive self-esteem enhances one's ability cope effectively with stressful life events or issues.

Another study conducted by Orth, Robins, Widaman & Conger (2014) examined the relationship between self-esteem and depression amongst 674 Mexican-origin adolescents and validated that lower levels of global self-esteem are associated with potential risk of depression. This study found that enhancing self-esteem, or the global evaluation of self, can positively protect against the risk of depression despite experiences of stressors within this population (Orth et al., 2014).

These research studies support the notion that this proposed effect of demonstrating low levels of self-esteem on the development of depression holds true for individuals from adolescence to old age (Orth, Robins, & Meier, 2009). However, there is limited research that has sought to explore how bicultural stress and self-esteem interact to predict depressive symptoms specifically within the Latina/o adolescent population. One study examined the interrelations between discrimination (i.e., a component of bicultural stress), self-esteem and depressive symptoms using a risk and resilience framework (Umaña-Taylor & Updegraff, 2007). This study sampled 274 Latina/o adolescents and found that self-esteem partially mediated the relationship between these students' reports of perceived discrimination and depressive symptoms (Umaña-Taylor & Updegraff, 2007). This study supports the hypothesis that self-esteem can protect an adolescent from the risks associated with discrimination, which is a culture-specific stressor that is associated with depressive symptoms in adolescents of Mexican-descent (Romero & Roberts, 2003).

As noted in the literature, Latina/o adolescents experience bicultural stress that is often associated with depressive symptoms. Furthermore, the experience of bicultural stress may differ for Latino boys and girls. In order to understand the experience of bicultural stress for Latina/o adolescents, this study aims to examine what specific components of bicultural stress (family stressors, discrimination stressors, monolingual stressors, and peer stressors) does self-esteem help to buffer in depression for Mexican American boys and girls. In addition, this study will also further examine whether there are specific aspects of bicultural stress that self-esteem may buffer in depression

differently for Mexican American boys and girls. By analyzing these gender disparities, we can help to gain insight on interventions that will be appropriate to help minimize the negative effects of these bicultural stressors and ensure that these students are less at risk of developing depressive symptoms.

Based on the findings in the literature, the following is hypothesized:

1. Self-esteem buffers components of bicultural stress (i.e., family stressors, discrimination stressors, monolingual stressors, and peer stressors) from depressive symptoms for Mexican American boys and girls.

2. The buffering effect of self-esteem on the relationship between these bicultural stressors and depressive symptoms will be stronger for Mexican American boys than for girls.

3. Monolingual stress will be more significantly associated with depressive symptoms in Mexican American boys than girls.

4. Family stress will be more significantly associated with depressive symptoms in Mexican American girls than boys.

5. Discrimination stress will be more significantly associated with depressive symptoms in Mexican American boys than girls.

6. Peer stress will be more significantly associated with depressive symptoms in Mexican American girls than boys.

CHAPTER II

METHODS

Participants

Participants included 191 Mexican American adolescents that attend high school in Weslaco, which is a midsized urban city located within the South Texas area. Participants' ages ranged from 13 to 19 years ($M = 16.66$ years; $SD = 1.37$ years). The sample consisted of 98 females and 93 males. The sample varied in generation level, with 10.4% first generation participants, which refers to children that immigrated to the United States after being born in Mexico. Approximately, 47.3% identified as second generation, which indicates that these participants are the children of parents that immigrated to the United States from Mexico. About 15.4% of the sample identified as third generation, indicating that these individuals and their parents were born in the U.S. and their grandparents immigrated to the U.S. from Mexico. Almost 14.8% identified as fourth generation (children with parents and at least one grandparent born in the U.S.) and 12.1% as fifth generation (participants with parents and all grandparents born in the U.S.). Participants were in grades ranging from ninth to twelfth with 23.9% in 9th grade, 17.0% in 10th grade, 25.5% in 11th grade, and 33.5% in 12th grade. Sample characteristics can be found in Table 1.

Measures

Bicultural Stress. The 20-item Bicultural Stressors Scale (Romero & Roberts, 2003) was used to assess the perceived stress of the students within a bicultural context.

It measures intergenerational conflict, monolingual stressors, and peer pressure to conform to one's ethnic group. Responses were on a 4-point Likert scale ranging from 1, "Not at all stressful," to 4, "Very stressful." This scale is divided into four different subscales including Monolingual stress (4 items), Family Stress (7 items), Discrimination Stress (5 items), and Peer Stress (4 items). Sample items incorporated into the survey include "I've been treated badly because of my accent," "I've felt that others don't accept me because of my ethnic group," and I don't feel comfortable with people whose culture is different from mine." The process for computing each participant's scores requires the calculation of the average score for each subscale. This will then provide an indication of the level of stress endorsed by participants across each of these four domains of bicultural stress. Responses were coded such that a higher score indicates a higher reported levels of bicultural stress experienced by the individual. For this present study, alphas for each of the subscales were as follows: Monolingual stress $\alpha= .46$, Family Stress $\alpha= .70$, Discrimination stress $\alpha= .65$, and Peer stress $\alpha= .68$. This measure has been used previously in a study with youth of Mexican descent and it produced a strong reliability ($\alpha= .93$) for the overall scale (Romero & Roberts, 2003). The data of this present study yielded an alpha of .82 for the scale in its entirety.

Self-Esteem. The 10-item Rosenberg Self-Esteem Scale (Rosenberg, 1979) consists of statements designed to assess positive evaluations of the self. Responses were on a 4-point Likert scale ranging from 0, "strongly disagree," to 3, "strongly agree." Sample items of this scale that were incorporated into this research study include "I am satisfied with myself," "I have good qualities," and "I am a person of worth or value."

An average of these ten items is calculated to compute a participant's score on this scale. Responses were coded such that a higher average score indicates a higher level of self-esteem that is being endorsed by the participant. Supple and Plunkett (2011) conducted a previous study that used the RSES with Latino adolescent populations (i.e., Mexican, Salvadoran, & Guatemalan) and found that this scale had acceptable reliability ($\alpha = .79$). Additionally, Supple and Plunkett (2011) found that a bi-dimensional model only demonstrated good fit for two of the three samples (i.e., Salvadorian and Guatemalan) and was viewed as a poor fit for the Mexican sample. Results from this study highlighted the substantial effects when including correlated errors for negatively worded items and noted the goodness of fit across all three samples (Supple & Plunkett, 2011). This is important to take into consideration as this study used a more traditional conceptualization of self-esteem as a global and uni-dimensional variable.
For this present study, the data yielded an alpha of .83 for the scale in its entirety.

Depression. The Center for Epidemiological Studies Depression scale (Radloff 1977) is used to screen individuals of depressive symptoms. The participants were provided with a shortened 10-item version of the CES-D and were asked to depict how often they have experienced these symptoms during the past seven days. Responses were based on a 4-point Likert scale ranging from 0, "less than 1 day," to 3, "5-7 days." Sample items of this scale used in this study include "I was bothered by things that usually don't bother me," "I couldn't shake off the blues even with help from family," and "I thought my life had been a failure." Using this shortened version yielded good internal consistency with a $\alpha = .70$ in this study.

Procedure

  This study was conducted using a secondary data set that previously received approval from the institutional review board of the authors' home institution. In addition, permission was obtained from the principal of the high school to allow the investigators to recruit the participants and survey students during elective courses. Each student was provided with consent forms that were to be completed and returned to the teacher of their elective course. Students under the age of 18 were required to return the forms providing written consent from their parents before being allowed to participate in this study. In addition, students 18 or older were able to consent for participation themselves and were not required to obtain parental permission. Each participant was also given an informed assent form that included an explanation of the benefits and risk of participating in this study, information on the purpose of this study, and the contact information for both the primary investigator and the institutional review board of the university conducting the research study. Student participants who returned their signed forms were taken out from their elective courses and administered the survey packet containing the aforementioned measures in English. These materials were all administered using a pencil-and-paper format. Participation in this study was completely anonymous and voluntary and each student was provided with the option to decline participation in the research study at any time. Students that did choose to participate in the study were entered into a drawing to win one of the ten $50 gift cards to the local movie theatre.

CHAPTER III

RESULTS

Proposed Analysis

This study conducted path analyses to examine the interactive effects of self-esteem and bicultural stressors on depressive symptoms for Mexican American adolescents. As a preliminary step to analyzing product terms, mean centering of the original variables was conducted. Mean centering entails subtracting the mean of a variable from every score and is typically used to reduce correlations between product terms and constituent variables (Kline, 2011). Hypothesized path models using AMOS 22.0.0 were used to evaluate the direct effects of the product terms (i.e. bicultural stress component x self-esteem) on the outcome variable (depressive symptoms). A multi-group comparison approach was used to evaluate the overall model significance and fit for both groups (Mexican American boys and girls) and to determine whether differences exist in the relationships between each of the bicultural stressors and self-esteem on depressive symptoms. The self-esteem buffering hypothesis was also tested using a simple moderation model (i.e., Model 1) generated by the Hayes PROCESS macro definition command as it allowed for moderator analyses (Hayes, 2013). This macro was run using SPSS version 23 and it conducts a regression in which the centered interaction between the predictor (i.e., monolingual stress) and the moderator or buffer (i.e., self-esteem) is used as a predictor of the dependent outcome, depressive symptoms in Mexican American girls and boys.

Monolingual Stress

A multigroup path analysis was used to compare both Mexican American boys and girls on the monolingual stress factor. To test the differences in groups, the chi-square from a model with all parameters allowed to be unequal was compared to the chi-square from a model with constraints across groups. Examination of goodness of fit indices (CFI, RMSEA, TLI) was used to determine if the model is an acceptable fit for the data (Bollen & Long, 1993). Values of the Comparative Fit Index (CFI) range from 0 to 1. It has been argued that CFI values greater than or equal to .90 suggests good fit (Loehlin, 1998). Steiger's root-mean-square error of approximation (RMSEA) also range from 0 to 1 with lower numbers indicating better fit to the data (Steiger, 1998). RMSEA is an indication of good fit if the estimation value falls within .05 and .08 (Loehlin, 1998). The Tucker Lewis index (TLI) is another measure of overall fit that ranges from 0 to 1, with values greater than .90 suggesting good model fit.

The unconstrained model yielded an overall chi-square of χ^2 (4) = 7.5, p = .111. It appeared to be an adequate fit for the data based on the two indices mentioned above (CFI = .923, RMSEA = .068, TLI = .770). However, the constrained model appears to be the preferred model since the difference in overall chi square was not that significant in comparison to the unconstrained model, χ^2 (5) = 9.4, p = .095, $\Delta \chi^2$ (1) = 1.9, p = .168. Other indices of fit suggest that the model constrained to be equal across groups has adequate indices of fit (CFI = .905, RMSEA = .068, TLI = .772). These findings suggest that the model for monolingual stress has measurement invariance across groups since

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the chi-square difference was not significant. Although the groups may not be different at the model level, it is suggested that they may be different at the path level.

As suggested by the chi-square test between the models, it is suggested that the direct effects of monolingual stress and self-esteem on depressive symptoms may differ amongst groups of girls and boys. According to the results, the standardized regression coefficient (β) for girls was -.074, whereas for boys it was -.083. Self-esteem seems to demonstrate a dampening effect on the relationship between monolingual stress and depressive symptoms for both Mexican American girls and boys. However, monolingual stress, self-esteem, and its interaction effects appear to account for 24% of depressive symptoms in girls and only 15% in boys.

Although the relationship between monolingual stress and depressive symptoms was not significant for females ($r = .176; p = .084$), it was significant for males ($r = .224; p < .05$). Similarly, the relationship between monolingual stress and self-esteem appeared to be significant only for males ($r = -.237; p < .05$) and not females ($r = .109; p = .283$). However, the interaction effect between self-esteem and monolingual stress did not appear to be significantly associated with depressive symptoms for males ($r = -.039; p = .713$) or females ($r = -.128; p = .209$).

To test the hypothesis that depressive symptoms in Mexican American adolescents are a function of bicultural stressors, and more specifically, whether self-esteem moderates the relationship between depressive symptoms and monolingual stress, a hierarchal multiple regression analysis was conducted for both groups.

Girls. In the first step, two variables were included: monolingual stress and self-esteem. These variables accounted for a significant amount of variance in Mexican American girls depressive symptoms, $R^2 = .230$, F (2, 95) = 14.15, p < .001. To avoid potentially problematic high multicollinearity with the interaction term, the variables were centered and an interaction term between self-esteem level and adolescent girls monolingual stress was created (Aiken & West, 1991).

Next, the interaction term between self-esteem level and monolingual stress was added to the regression model, which did not account for a significant proportion of the variance in girls' depressive symptoms, $\Delta R2 = .025$, ΔF (1, 94) = 3.141, p = .080, b = -.332, t(94) = -1.98, p = .051. Examination of the interaction plot showed a slight antagonistic effect, although not statistically significant, that as self-esteem levels and monolingual stress increased, depressive symptoms decreased. At low monolingual stress, depressive symptoms were relatively similar for girls with low, average, or high self-esteem levels. Although not significant, there appears to be a trend where girls who experience high monolingual stress with high self-esteem levels had the least depressive symptoms.

Boys. The same regression model was used to test the hypothesis for Mexican American males. In the first step, two variables were included: monolingual stress and self-esteem. These variables accounted for a significant amount of variance in Mexican American boys' depressive symptoms, $R^2 = .155$, F (2, 90) = 8.25, p < .001. To avoid potentially problematic high multicollinearity with the interaction term, the variables

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were centered and an interaction term between self-esteem level and adolescent boys monolingual stress was created (Aiken & West, 1991).

Next, the interaction term between self-esteem level and monolingual stress was added to the regression model, which did not account for a significant proportion of the variance in boys' depressive symptoms, $\Delta R2 = .000$, $\Delta F (1, 89) = .009$, p $= .926$, b $= -.017$, t(89) $= .074$, p $= .941$. Examination of the interaction plot showed a slight dampening effect, although not statistically significant, that as self-esteem levels and monolingual stress increased, depressive symptoms decreased. The slopes of depressive symptoms were relatively similar for boys with low, average, or high self-esteem levels. Overall, there seemed to be a trend, although not significant, where boys who experienced high monolingual stress with high self-esteem levels seemed to have the least endorsed depressive symptoms.

Family Stress

A multigroup path analysis was used to compare both Mexican American boys and girls on the family stress factor. To test the differences in groups, the chi-square from an unconstrained model was compared to the chi-square from a model with constraints across groups. In addition, goodness of fit indices were examined as well to determine how well the model captures the data.

The unconstrained model yielded an overall chi-square of $\chi^2 (4) = 14.2$, p $= .007$. However, it appeared to be only a moderate fit for the data based on two commonly used fit indices mentioned above (CFI $= .807$, RMSEA $= .116$, TLI $= .421$). However, the constrained model appears to be the preferred model since the difference in overall chi

square was not that significant in comparison to the unconstrained model, χ^2 (5) = 15.8, p = .008, $\Delta \chi^2$ (1) = 1.6, p = .211. Other indices of fit suggest that the model constrained to be equal across groups has relatively moderate model fit (CFI = .796, RMSEA = .107, TLI = .511). These findings suggest that the model for family stress has measurement invariance across groups since the chi-square difference was not significant. This suggests that there may be path level differences amongst the groups.

As suggested by the chi-square test between the models, it is suggested that the direct effects of family stress and self-esteem on depressive symptoms may differ amongst groups of girls and boys. According to the results, the standardized regression coefficient (β) for the product term (family stress x self-esteem) in girls was .103, whereas for boys it was .082. Self-esteem seems to demonstrate an amplifying effect on the relationship between family stress and depressive symptoms for Mexican American girls and boys. However, family stress, self-esteem, and its product term appear to account for 28% of depressive symptoms in girls and only 14% in boys.

Although the relationship between family stress and depressive symptoms was not significant for males ($r = .105$; $p < .32$), it was significant for females ($r = .260$; $p < .01$). Similarly, the relationship between family stress and self-esteem appeared to be significant only for females ($r = -.215$; $p < .05$) and not males ($r = .158$; $p < .13$). However, the interaction effect between self-esteem and family stress did not appear to be significantly associated with depressive symptoms for males ($r = -.010$; $p < .93$) or females ($r = -.001$; $p < 1.0$).

Similarly to monolingual stress, a hierarchal multiple regression analysis was conducted for both Mexican American males and females to test whether self-esteem moderates the relationship between depressive symptoms and family stress.

Girls. In the first step, two variables were included: family stress and self-esteem. These variables accounted for a significant amount of variance in Mexican American girls depressive symptoms, $R^2 = .241$, F (2, 95) = 15.07, p < .001. To avoid potentially problematic high multicollinearity with the interaction term, the variables were centered and an interaction term between self-esteem level and adolescent girls family stress was created (Aiken & West, 1991).

Next, the interaction term between self-esteem level and family stress was added to the regression model, which did not account for a significant proportion of the variance in girls' depressive symptoms, $\Delta R2 = .027$, ΔF (1, 94) = 3.407, p = .068, b = -.276, t(94) = 1.37, p = .175. Examination of the interaction plot showed a slight enhancing effect, although not statistically significant, that as self-esteem levels and family stress increased, depressive symptoms increased. At low family stress, depressive symptoms were relatively similar for girls with low, average, or high self-esteem levels. Similarly, there seemed to be a non-significant trend in which girls who experience high family stress seemed to experience relatively increased depressive symptoms regardless of self-esteem level.

Boys. In the first step, two variables were included: family stress and self-esteem. These variables accounted for a significant amount of variance in Mexican American boys depressive symptoms, $R^2 = .137$, F (2, 90) = 7.16, p < .001. To avoid potentially

problematic high multicollinearity with the interaction term, the variables were centered and an interaction term between self-esteem level and adolescent boys' family stress was created (Aiken & West, 1991).

Next, the interaction term between self-esteem level and family stress was added to the regression model, which did not account for a significant proportion of the variance in boys' depressive symptoms, $\Delta R2 = .000$, $\Delta F (1, 89) = .021$, $p = .885$, $b = -.029$, $t(89) = -.155$, $p = .881$. Examination of the interaction plot showed a trend of a buffering effect, although not statistically significant, as increased self-esteem levels seemed to relatively decrease the effect of family stress on depressive symptoms.

Discrimination Stress

Similar to the previous models, a multigroup path analysis was used to compare both Mexican American boys and girls on the discrimination stress factor. The overall chi-square was compared from a model with all parameters allowed to be unequal as well as from a model with constraints across groups. Additionally, goodness of fit indices were used to further examine if the proposed model reflects a good model fit.

The unconstrained model for discrimination stress yielded an overall chi-square of $\chi^2 (4) = 2.6$, $p = .626$. It appeared to be an adequate fit for the data based on the two indices mentioned above (CFI = 1.000, RMSEA = .000, TLI = 1.120). In contrast, the constrained model yielded an overall chi-square of $\chi^2 (5) = 2.9$, $p = .716$. The constrained model is suggested to be the preferred model since the difference in overall chi square, $\Delta \chi^2 (1) = .30$, $p = .587$, was not that significant in contrast to the unconstrained model. Other indices of fit suggest that the model constrained to be equal

across groups has adequate indices of fit (CFI = 1.000, RMSEA = .000, TLI = 1.145). These results suggest that the model for discrimination stress has measurement invariance across groups since the overall chi-square difference was not significant. We will further examine if there may be differences at the path level across boys and girls.

As suggested by the chi-square test between the models, the direct effects of discrimination stress and self-esteem on depressive symptoms may differ amongst groups of Mexican American girls and boys. According to the results, the standardized regression coefficient (β) for the product term (discrimination stress x self-esteem) in girls was .039, whereas for boys it was .055. Self-esteem seems to strengthen the positive relationship between discrimination stress and depressive symptoms for both Mexican American girls and boys. This suggests that the interaction of self-esteem and discrimination stress has an amplifying effect on depressive symptoms. Discrimination stress, self-esteem, and its interaction effects appear to account for 23% of depressive symptoms in girls and only 15% in boys.

Interestingly, the relationship between discrimination stress and depressive symptoms was not significant for females ($r = .172$; $p < .10$) or for males ($r = .163$; $p < .12$) in this study. Additionally, the relationship between discrimination stress and self-esteem did not appear to be significant for females ($r = -.165$; $p < .11$) and males ($r = -.125$; $p < .24$). Similarly, the interaction effect between self-esteem and discrimination stress did not appear to be significantly associated with depressive symptoms for males ($r = -.004$; $p < .97$) or females ($r = .026$; $p < .81$).

Similarly to previous bicultural stressors, a hierarchal multiple regression analysis was conducted for both Mexican American males and females to test whether self-esteem moderates the relationship between depressive symptoms and discrimination stress.

Girls. In the first step, two variables were included: discrimination stress and self-esteem. These variables accounted for a significant amount of variance in Mexican American girls depressive symptoms, $R^2 = .223$, $F (2, 95) = 13.64$, $p < .001$. To avoid potentially problematic high multicollinearity with the interaction term, the variables were centered and an interaction term between self-esteem level and adolescent girls discrimination stress was created (Aiken & West, 1991).

Next, the interaction term between self-esteem level and discrimination stress was added to the regression model, which did not account for a significant proportion of the variance in girls' depressive symptoms, $\Delta R2 = .006$, $\Delta F (1, 94) = .732$, $p = .394$, $b = .178$, $t(94) = 1.27$, $p = .208$. Examination of the interaction plot showed a slight enhancing effect, although not statistically significant, that as self-esteem levels and discrimination stress increased, depressive symptoms increased. At low self-esteem levels, depressive symptoms seemed relatively similar as discrimination stress increased. However, for girls with high levels of self-esteem, their seemed to be a non-significant trend of more of an increase in their depressive symptoms as discrimination stress increased.

Boys. In the first step, two variables were included: discrimination stress and self-esteem. These variables accounted for a significant amount of variance in Mexican

American boys depressive symptoms, $R^2 = .149$, F (2, 90) = 7.87, p < .001. To avoid

potentially problematic high multicollinearity with the interaction term, the variables

were centered and an interaction term between self-esteem level and adolescent boys'

discrimination stress was created (Aiken & West, 1991).

Next, the interaction term between self-esteem level and discrimination stress

was added to the regression model, which did not account for a significant proportion of

the variance in boys' depressive symptoms, $\Delta R2 = .001$, ΔF (1, 89) = .060, p = .807, b =

.036, t(89) = .199, p = .843. Examination of the interaction plot showed a buffering

effect, although not statistically significant, as increased self-esteem levels seemed to

relatively decrease the effect of discrimination stress on depressive symptoms

Peer Stress

As conducted with the previous path models, a multigroup comparative analysis

was used to examine differences between both Mexican American boys and girls on the

peer stress factor. The overall chi-square was compared from a model with all

parameters allowed to be unequal and a model with constraints set across groups.

Several goodness of fit indices were evaluated to further examine if the proposed model

reflects a good fit for the data.

The unconstrained model for peer stress yielded an overall chi-square of χ^2 (4) =

3.1, p = .540. It appeared to be an adequate fit for the data based on the two indices

mentioned above (CFI = 1.000, RMSEA = .000, TLI = 1.071). In contrast, the

constrained model yielded an overall chi-square of χ^2 (5) = 3.5, p = .630. The

constrained model is suggested to be the preferred model since the difference in overall

chi square, $\Delta \chi^2 (1) = .35$, p = .555, was not very significant in comparison to the unconstrained model. Other indices of fit suggest that the model constrained to be equal across groups has good fit (CFI = 1.000, RMSEA = .000, TLI = 1.098). These results suggest that the model for peer stress has measurement invariance across groups since the overall chi-square difference was not significant. Further examination is needed to determine if there are differences at the path level across boys and girls, since the groups are not different at the model level.

As suggested by the chi-square test between the models, the direct effects of peer stress and self-esteem on depressive symptoms may differ amongst groups of Mexican American girls and boys. According to the results, the standardized regression coefficient (β) for the product term (peer stress x self-esteem) in girls was .032, whereas for boys it was .058. Self-esteem seems to dampen the negative relationship between peer stress and depressive symptoms for Mexican American girls. However, self-esteem appears to strengthen the positive relationship between peer stress and depressive symptoms in boys. This is an interesting finding as it suggests that the direct effect of the product term seems to effect boys and girls in very different ways. Additionally, peer stress, self-esteem, and its interaction effects appear to account for 22% of depressive symptoms in girls and only 17% in boys.

Although the relationship between peer stress and depressive symptoms was not significant for females ($r = .076$; $p < .46$), it was significant for males ($r = .224$; $p < .05$). However, the relationship between peer stress and self-esteem appeared to be significant only for females ($r = -.208$; $p < .05$) and not males ($r = .128$; $p < .22$). However, the

interaction effect between self-esteem and family stress did not appear to be significantly associated with depressive symptoms for males ($r = .048$; $p < .65$) or females ($r = -.056$; $p < .59$).

Similarly to previous three bicultural stressors, researcher was able to conduct a hierarchal multiple regression analysis was conducted for both Mexican American males and females to test whether self-esteem moderates the relationship between levels of endorsed depressive symptoms and peer stress.

Girls. In the first step, two variables were included: peer stress and self-esteem. These variables accounted for a significant amount of variance in Mexican American girls depressive symptoms, $R^2 = .214$, $F(2, 95) = 12.94$, $p < .001$. To avoid potentially problematic high multicollinearity with the interaction term, the variables were centered and an interaction term between self-esteem level and adolescent girls reported peer stress was created (Aiken & West, 1991).

Next, the interaction term between self-esteem level and peer stress was added to the regression model, which did not account for a significant proportion of the variance in girls' depressive symptoms, $\Delta R2 = .000$, $\Delta F(1, 94) = .022$, $p = .883$, $b = -.040$, $t(94) = -.097$, $p = .923$. Examination of the interaction plot showed a slight dampening effect, although not statistically significant, that as self-esteem levels and peer stress increased, depressive symptoms decreased in Mexican American girls. At low self-esteem levels, depressive symptoms seemed relatively similar as peer stress increased. However, for girls with high levels of self-esteem, there seemed to be a non-significant trend in which there was a slight decrease in their depressive symptoms as peer stress increased.

Boys. In the first step of the model, two variables were included: peer stress and self-esteem. These variables accounted for a significant amount of variance in Mexican American boys depressive symptoms, $R^2 = .167$, $F (2, 90) = 9.01$, $p < .001$. The variables were centered and an interaction term between self-esteem level and adolescent boys' peer stress was created as a means to avoid potentially problematic high multicollinearity with the interaction term, (Aiken & West, 1991).

Next, the interaction term between self-esteem level and peer stress was added to the regression model, which did not account for a significant proportion of the variance in boys' depressive symptoms, $\Delta R2 = .007$, $\Delta F (1, 89) = .789$, $p = .377$, $b = .143$, $t(89) = .727$, $p = .469$. Examination of the interaction plot showed a slight enhancement effect, although not statistically significant, as increased self-esteem levels and peer stress seemed to relatively increase, the effect of the stress on depressive symptoms increased. At low self-esteem levels, depressive symptoms seem relatively similar as peer stress increased. However, for Mexican American boys with higher self-esteem levels, there seemed to be a trend in which there was more of an increase of endorsed depressive symptoms as their reports of peer stress were endorsed, although it was not statistically significant.

It is important to note that self-esteem levels for both males ($r = -.367$; $p < .01$) and females ($r = -.462$; $p < .01$) were found to be significantly associated with depressive symptoms, although the interaction effects between self-esteem and each of the individual components of bicultural stress did not significantly buffer against depressive symptoms for these Mexican American adolescents.

CHAPTER IV

DISCUSSION

The central aim of this study was to examine the diathesis-stress model amongst Mexican American girls and boys and to test whether self-esteem buffered the effects of bicultural stressors on depressive symptoms. Additionally, this study sought to test whether there would be gender differences in the buffering effects of self-esteem. Lastly, this study sought to disentangle each of the four components of bicultural stress (i.e., monolingual stress, family stress, discrimination stress, and peer stress) and to examine whether gender differences existed in the relationship between these stressors and depressive symptoms.

The results of this study illustrated that a significant association between family stress and depressive symptoms exists in Mexican American adolescent girls. Similarly, there was a significant relationship between peer and monolingual stress and the endorsement of depressive symptoms only in Mexican American adolescent boys. However, the relationship between discriminatory stress and endorsement of depressive symptoms was not significant for either group. The self-esteem buffering hypothesis was not found to be present for each of the four bicultural stressors as these interactions were not statistically significant. However, the interaction between self-esteem and the peer component of bicultural stress had an antagonistic effect on depressive symptoms of only Mexican American adolescent girls. These gender disparities impact how

professionals work with this adolescent population of Mexican American adolescents and have several implications for future studies and clinical work.

Monolingual Stress

Monolingual stress was significantly related to depressive symptoms in boys. This means that Mexican American boys who were made fun of for speaking Spanish or English poorly were more likely to demonstrate a lower endorsement of overall self-esteem. In addition, it was found that self-esteem appeared to be negatively associated with monolingual stress for boys. Thus, boys who were more satisfied with themselves and believed they were of value were not as negatively affected when faced with problems because of their accents or ability to speak Spanish. However, self-esteem did not significantly buffer the positive relationship between monolingual stress and depressive symptoms in Mexican American adolescent boys. In turn, boys who were experiencing considerable monolingual stress with low self-esteem levels were more likely to report experiencing more depressive symptoms compared to boys who had higher self-esteem levels. Mexican American boys who believe they do not possess good qualities may be more at risk for depression when they are being made fun of for how they speak Spanish and/or English.

Monolingual stress was not significantly related to depressive symptoms in girls. Mexican American girls who were mocked because of their accents were not more likely to feel endorse experiencing depressive symptoms assessed in the CESD-10. In addition, self-esteem did not significantly moderate the positive relationship between monolingual stress and depressive symptoms for girls. Self-esteem levels seem to

weaken the positive relationship between monolingual stress and depressive symptoms in Mexican American adolescent girls, however it was not a significant association. Monolingual stress, self-esteem, and its interaction effect (monolingual stress x self-esteem) accounted for more depressive symptoms reported in girls than boys. These findings suggest that girls who were more proud of themselves and believed they were useful may not be as negatively affected by insecurities about their accents or ability to speak English and Spanish well. In turn, they were less likely to report feeling hopeless and lonely.

The study findings did support Hypothesis 3 (i.e., *Monolingual stress will be more significantly associated with depressive symptoms in Mexican American boys than girls.*). Monolingual stress had more of an impact on Mexican American boys endorsement of depressive symptoms than for girls. The findings in this study were consistent with the literature given that the monolingual stressors examined consisted of experiences in which one feels they are being "treated badly" or having "felt pressured" to learn Spanish. As previous literature has suggested, boys may be more vulnerable to negative encounters of perceived judgment and are less likely to have more exposure to practicing speaking both English and Spanish in comparison to their female counterparts (Love & Buriel, 2007; Perez, Fortuna, & Alegria, 2008).

Additionally, it was predicted that the buffering effect of self-esteem would be stronger for boys than for girls (Hypothesis 2). Although the findings suggest that there seemed to be some trends suggesting the self-esteem buffering hypothesis is at play for both genders, in regards to monolingual stress, it appears to have a slightly stronger

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effect in females. The outcome may have been different than anticipated because girls' self-esteem levels were more significantly associated with predicting diminished depressive symptoms. This sample of girls seems to be able to use their positive attitude towards themselves to help them cope with monolingual stressors, such as feeling pressured or mocked for their accents, thus making them less at risk for feeling upset or bothered. As literature has suggested, Mexican American girls are not as affected by discrimination as their male counterparts (Perez, Fortuna, & Alegria, 2008). Perez, Fortuna, and Alegria (2008) suggest that the increased rate amongst younger Latinos of reported discrimination may be interconnected with being more vulnerable and susceptible to have a negative encounter within a social institution. Additionally, this study talks about how as Latinos learn to become more fluent in Spanish and English, they are more likely to endorse experiencing twice as much acts of perceived discrimination (Perez, Fortuna, & Alegria, 2008). Thus, maybe these adolescent girls do not feel as bothered about needing to improve their Spanish or English because they are satisfied with themselves and gain a sense of fulfillment in being able to serve a function or role as the translator within their social contexts (Buriel, Perez, Ment, Chavez & Moran, 1998).

The findings of this study suggest that monolingual stress is significantly associated with depressive symptoms only in Mexican American boys, whereas the relationship for girls was not statistically significant. This may have been in part due to the subscale having a lower reliability in comparison to the other bicultural stress subscales. Future studies may find consider using a different scale or questionnaire to

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assess the monolingual stress experienced by this subsample of adolescents that come from bicultural backgrounds. It may be helpful to use a scale that contains items assessing how monolingual stress affects not only their feelings but their behaviors as well. For example, assessing how their insecurities about their accent influence their likelihood to try to participate in class or ask a peer or teacher for assistance. It would be interesting to create a scale that assesses how monolingual stress affects the adolescent both in the their academic world as well as their family environment. Using a scale that contains these types of items may help to assess a more holistic view of monolingual stress before determining how strongly it is associated to depressive symptoms.

  In regards to the buffering effect of self-esteem on the relationship between monolingual stress and depressive symptoms, it was interesting to find that the effect was stronger for girls. Future studies may consider testing the self-esteem buffering hypothesis on this adolescent population using a different self-esteem questionnaire. As studies have demonstrated, boys and girls' self-esteem is attributed to different factors, such as being "popular" and feeling more socially accepted for boys (Weisskirch & Alva, 2002) while girls' self-esteem may be more attributed to the roles that they play (e.g., being the protector) within different environmental contexts and relationships (Denner & Dunbar, 2004). Perhaps a different conceptualization of self-esteem may help to better buffer against the particular monolingual stressors endorsed by Mexican American boys and girls.

Family Stress

Family stress was not found to be significantly related to depressive symptoms in boys. Mexican American boys who had conflicts with their parents about cultural traditions were not more likely to feel lonely and unhopeful about their future. In addition, it was found that self-esteem appeared to buffer this relationship and decrease the main effect of family stress (i.e., predictor) on depressive symptoms (i.e., outcome). Self-esteem appeared to lessen the positive relationship between family stress and depressive symptoms in Mexican American adolescent boys. Thus, boys who were more satisfied with the qualities they possessed were still negatively affected when faced with conflicts in their family regarding cultural obligations and responsibilities. In turn, self-esteem did not seem to significantly buffer the negative effects of family stress on depressive symptoms in boys and they were still likely to report feeling blue or hopeless.

Family stress was significantly related to depressive symptoms in girls. This suggests that Mexican American girls who argue with their parents about traditions and rules were more likely to feel sad and bothered. In addition, it was found that self-esteem appeared to positively moderate the positive relationship between family stress and depressive symptoms for girls, although the relationship was not statistically significant. This suggests that despite endorsing high levels of global self-esteem, it did not seem to buffer against the negative mental health effects associated with having issues within their family relating to cultural obligations. However, family stress, self-esteem, and its interaction effect (family stress x self-esteem) accounted for more depressive symptoms reported in girls than boys.

The results supported Hypothesis 4 (Family stress will be more significantly associated with depressive symptoms in Mexican American girls than boys). The results were as expected because girls are considerably influenced by external factors and gain much of their identity from their standing with their family and peers (Love & Buriel, 2007). In addition, girls are likely to feel more devalued when pressured to oblige to gender-specific traits (Love & Buriel, 2007). Thus, girls having conflicts with their families about obligations and traditional behaviors are expected to be more at risk of feeling lonely and bothered.

The findings did not support the hypothesis that the buffering effect of self-esteem would be stronger for boys than girls (Hypothesis 2). Instead, the findings suggest that self-esteem positively moderated the relationship between family stress and depressive symptoms thus acting as an amplifier rather than a buffer for both genders. The outcome may have been different than previous research because if these students regard themselves positively, then this could potentially enhance the family conflicts they are having family. That is, as an adolescent grows in regard for himself or herself, they may become less inclined to follow the expectations and obligations set by their families thus putting them more at risk for the negative effects of this stressor (Love & Buriel, 2007). Furthermore, these adolescents may be more at risk for feeling lonely and as though their life is a failure as stressors have been known to be associated with depressive symptoms.

As predicted, family stress was statistically related to depressive symptoms in girls rather than boys. As girls gain a majority of their identity from their social

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relationships and external factors (Denner & Dunbar, 2004), it is understandable that they would be more at risk of not adjusting with the stressors from this component of bicultural stress. Future studies may consider assessing other negative effects of this specific bicultural stressor on adolescent Mexican Americans. For example, it is important to know whether family stress is associated with suicidal ideations, impairs on identity development, and academic success. As for boys, future studies may be curious to test whether family stress is possibly associated with depressive symptoms depending on the location of these adolescents. Perhaps this bicultural stressor did not as negatively impact this particular sample because there are not as many conflicts regarding obligations and traditions in this predominately Hispanic community. It would be interesting to test whether this finding would still be true when assessing a sample of Mexican American boys from a predominantly Caucasian community.

In addition, the findings did not support the self-esteem buffering hypothesis for both groups. Instead, this study found that self-esteem enhanced the positive relationship between family stressors and depressive symptoms in these Mexican American adolescents. It is important to further assess why self-esteem amplifies the diathesis-stress model and their likelihood to endorse depressive symptoms. Additional studies should consider investigating if this finding is true for all minorities or if it is limited to Mexican American adolescents, while also examining potential within group differences based on acculturation level.

Discrimination Stress

Discrimination stress was not more related to depressive symptoms in Mexican American boys than girls. Mexican American boys who felt uncomfortable with others from different ethnic backgrounds were not more likely to feel like they are not as good as others. In addition, it was found that self-esteem appeared to positively moderate this relationship and changed the main effect between discrimination stress and depressive symptoms. This suggests that self-esteem strengthened the positive relationship between discrimination stress and depressive symptoms in Mexican American adolescent boys. Feeling satisfied and having a positive attitude towards oneself does not seem to act as a buffer against the influence of family stress on depressive symptoms. Thus, worrying that others will put down or mock your ethnicity is positively associated with feeling hopeless and bothered regardless if you believe you are a person of value and worth.

Discrimination stress was not significantly related to depressive symptoms in girls as well. This suggests that Mexican American girls who struggle to understand and feel comfortable around others with different cultures were not more likely to feel fearful and bothered. In addition, it was found that self-esteem appeared to positively moderate the positive relationship between discrimination stress and depressive symptoms for girls. This suggests that the association between worrying others will joke about your ethnic background and feeling blue is not buffered by feelings of personal satisfaction and pride. However, it does appear that discrimination stress, self-esteem, and its

interaction effect (discrimination stress x self-esteem) accounted for more depressive symptoms reported in girls than boys.

The findings did not support Hypothesis 5 (Discrimination stress will be more significantly associated with depressive symptoms in Mexican American boys than girls). The findings did not support previous research that shows, boys are shown to be more vulnerable to having encounters of perceived discrimination (Perez, Fortuna, & Alegria, 2008). Additionally, many of these items on this subscale address the internal evaluations of the participant as they are asked to assess their own discomfort with others' culture as well as their own. Since males' identities are believed to be more internally oriented than their female peers, it would be expected that these Mexican American boys be more likely to feel they are not as good as other people if they are feeling distressed about feeling different or misunderstood.

The findings did not support my hypothesis that the buffering effect of self-esteem would be stronger for boys than girls (Hypothesis 2). Instead, the findings suggested that self-esteem positively moderated the positive relationship between discrimination stress and depressive symptoms. Instead of serving as a buffer, self-esteem was found to act as an amplifier or enhancer for both genders. The outcome may have been different than previous research because if these students have high regard of themselves then this may make them less receptive to others from different cultures than their own (Crockett et al., 2007). These students may be highly socialized into their heritage culture that they perceive anyone from a different culture as a threat or as someone that they cannot relate to in any way (Perez, Fortuna, & Alegria, 2008). Thus,

their likelihood to endorse feeling misunderstood or mocked is increased which puts them at considerable risk for endorsing depressive symptoms such as feeling bothered and or believing that other people are unfriendly.

The association between discrimination stress and depressive symptoms was not found to be statistically significant for either group of adolescents. This is an interesting finding as it would have been anticipated that this stressor would increase these adolescents risk of endorsing depressive symptoms because discrimination can be very isolating and painful. It may be the result of having a small sample size, which influences the power of the hypothesized diathesis stress models. Future studies should consider testing this diathesis model on a larger sample of Mexican American girls and boys to assess if there is a strong association between these two factors.

Furthermore, self-esteem was not proven to act as a buffer in the positive relationship between discrimination stress and depressive symptoms for this sample. Although there are proposed reasons why this finding was yielded, it is important for future researchers to test if this finding is true across samples of Mexican American adolescents from different locations or if it is limited to the participants from this south Texas rural town.

Peer Stress

 Peer stress was found to be significantly related to depressive symptoms in Mexican American boys. Thus, Mexican American boys who felt others did not accept them because of their ethnic background were more likely to feel like a failure. In addition, it was found that self-esteem appeared to positively moderate this relationship

and changed the main effect between peer stress and depressive symptoms. This suggests that self-esteem strengthened the positive relationship between peer stress and depressive symptoms in Mexican American adolescent boys. Believing you have good qualities and self-worth does not seem buffer against the influence of peer stress on depressive symptoms. Thus, the association between arguing with your friends and partners about your behaviors and feeling fearful seems to be amplified or enhanced by self-esteem levels in boys.

Peer stress was not found to be significantly related to depressive symptoms in girls. This suggests that Mexican American girls who argue with their friends about acting "White" or "traditional" were not more likely to feel depressed. Another interesting finding was that self-esteem appeared to negatively moderate the negative relationship between peer stress and depressive symptoms for girls. This suggests that self-esteem levels, or having a positive attitude of yourself, seems to buffer the relationship between peer stress and feeling unhopeful and fearful. Additionally, it is evident that peer stress, self-esteem, and its interaction effect (peer stress x self-esteem) accounted for more depressive symptoms reported in girls than boys.

The findings did not support Hypothesis 6 (Peer stress will be more significantly associated with depressive symptoms in Mexican American girls than boys). Instead, the findings depicted that peer stress was significantly related to increased depressive symptoms in boys. This differs from previous research that states girls are more relational and thus may be more susceptible to peer stress (Denner & Dunbar, 2004). Based on what boys endorsed on the peer stress subscale it appears that

boys endorsed finding experiences to be stressful that related specifically to being "too traditional," "acting White," and "not feeling accepted." This finding seems to be related to previous research that talks about boys endorsing higher levels of acculturative stress as they seek to obtain more social acceptance and fit in with their peers (Weisskirch & Alva, 2002).

The findings did not fully support my hypothesis that the buffering effect of self-esteem would be stronger for boys than girls (Hypothesis 2). Self-esteem only acted as a buffer for females and instead acted as an enhancer for males. The outcome may have been different than previous research suggested because their self-esteem levels were significantly associated with diminished depressive symptoms. These girls were able to use their positive attitudes towards themselves to help them deal with peers thinking they are acting "too White" or "too traditional." Additionally, these girls may be able to more easily maneuver between two cultures (i.e., Mexican American and White culture) and are able to adopt both traditional values along with what is deemed acceptable by their peers at school. Another explanation for the finding is that it is plausible that girls who were able to adapt to their environment may be better accepted by their peers and that this acceptance may increase their self-esteem. For example, Rosenberg, Schooler, and Schoenbach (1989) demonstrated and modeled reciprocal effects between self-esteem and psychological depression in adolescents. This study found that the association between self-esteem levels and psychological depression levels was bidirectional amongst male adolescents (Rosenberg, Schooler, & Schoenbach, 1989). This study suggests that one's self-esteem levels are largely related to the

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appraisals and comparisons with others and notes that experiencing depressive symptoms can lead to lower levels of self-esteem and vice versa (Rosenberg, Schooler, & Schoenbach, 1989). As such, more research in this area examining the possible reciprocal effects of self-esteem is needed.

The findings may have been different for males because they may feel uncertain about what is considered a good quality and what is something to be proud of as a male. For example, some boys may be perceived in a positive manner by their peers when giving in to the pressure of joining a gang. However, others from a different cultural background may perceive gang membership or acting traditional Mexican as something negative and may stereotype them. In contrast, if follow the norms of a different cultural background, they may be negatively branded as trying to "act White" and abandoning the perceived traditions of their Mexican peers (Cano, Castillo, Castro, de Dios, & Roncancio, in press). So, it may be harder for these male students to find acceptance from their peers because it is more difficult to find a good balance and middle ground between behaving appropriate to other cultural standards as well as to their own.

In contrast to proposed Hypothesis 6, peer stress was found to be statistically related to depressive symptoms in boys rather than girls. It would be important for future researchers to test whether this finding is true in other samples of Mexican American adolescents from different regions or if it is limited to this cultural enclave of participants. As literature has previously suggested, girls are more influenced by their peers and social standing (Denner & Dunbar, 2004; Hankin, Mermelstein & Roesch,

2007), it would be interesting to assess why in fact this stressor does not appear to have as dominant of an effect on this group of Mexican American girls.

In regards to the buffering effect of self-esteem on the relationship between peer stress and depressive symptoms, it was interesting to find that the effect was found to be true only for girls. Instead, self-esteem was found to act as an amplifier in the relationship between peer stress and depressive symptoms for boys. Future studies may consider testing the self-esteem buffering hypothesis on the Mexican American adolescent population using different self-esteem scales to see if the same result will be yielded. It will be important to analyze the reasoning as to why having a higher self-esteem enhances the likelihood that these boys will be more prone to depression if they are experiencing considerable peer stress.

CHAPTER V

CONCLUSIONS AND LIMITATIONS

Conclusions

The results of this study suggest that the association between monolingual stressors and depressive symptoms in Mexican American boys was statistically significant, although the same was not found for girls. This is an important stressor to look at because it could potentially put these students at risk of developing increasing symptoms of depression. Finding that self-esteem could buffer against the negative effects of this bicultural stressor is very important for professionals in psychology as well as academia working with this population. It is recommended that these professionals in society work together to help promote self-esteem levels in these Mexican American boys and girls in the hopes to protect them against the risks of developing depression. One way to use the insights gained from this study about this particular bicultural stressor is to consider engaging in self-esteem building exercises during foreign language courses as well as during English courses. Specifically, teachers can dedicate a designated piece of time during class for students to process their feelings and insecurities about learning a new language. Having students openly share these vulnerable feelings associated with monolingual stress may help their peers to better understand and become more aware of the anxieties associated with trying to learn and speak a new language. Additionally, it will help to normalize their feelings of struggle to learn something new and diminish the negative effects of the monolingual stressor.

Educators could also ensure to have students conduct presentations in which they explore the benefits of being bilingual. For example, students can do presentations discussing actors, musicians, politicians and other professionals who have found ways to successfully navigate being bicultural and having to learn to speak a new language. Similarly, psychology professionals can help these adolescents to reframe what it means to have an accent or to be bilingual. Instead of seeing it as a hindrance, these adolescents can learn to recognize that this unique difference can provide many benefits. By helping to normalize their fears and reframe how they think about these language differences can empower them to be more self-accepting and satisfied with who they are. Therefore, these students' self-esteem can be enhanced and their positive attitude toward themselves can help protect them against potentially developing depression.

Family stress was found to be associated with depressive symptoms as well, although the relationship was only significant for girls. This is very important for professionals to take into consideration when working with Mexican American adolescent girls because research has shown that increased depressive symptoms can be associated with a variety of psychological risk behaviors and academic challenges (Roberts & Chen, 1994; Hallfors et al., 2004; Fletcher, 2008). Professionals need to explore how these girls are being impacted by the cultural traditions and obligations placed upon them in their families. Specifically it will be helpful for professionals to dissect the factors that comprise family stress and examine how they are associated with the gender role expectations of these Mexican Americans. It is recommended that clinicians and educators work with these girls to help them explore their individual

interpretation of gender roles has influenced their thoughts, feelings and behaviors towards their family. Many of the family stressors are associated with conflict about what these Mexican American girls are obligated to do, whether it be translating for their parents, or showing respect, or behaving traditionally (Love & Buriel, 2007). Thus, it may be helpful to these girls to understand how they developed these beliefs about who they should be and how they should behave. By helping them understand how these schemas were developed and how their family influenced this process, these young girls can slowly become empowered to choose what is the right path for them that feels authentic and in alignment with who they want to be rather than who they are expected to be. Additionally, it will be necessary to help them develop coping skills when trying to deal with this ongoing process, as it could potentially lead to more family conflict if they find themselves drifting from the expectations placed upon them by their relatives. In doing so, it will help to diminish the negative effects of this particular bicultural stressor while also providing them with the necessary tools to navigate these family stressors.

The results of this study suggest that there is an association between discrimination stressors and depressive symptoms in Mexican American adolescent boys and girls, although it was not statistically significant. It is still important for professionals to take into consideration when working with this population of adolescents because these negative encounters with discriminations could potentially put them at risk of endorsing increased symptoms of depression (Umaña-Taylor & Updegraff, 2007). Thus, it is recommended that professionals work together to

discourage discrimination towards others of different cultural backgrounds. These students could have developed such beliefs that they were going to be treated unfairly because of first-hand experiences with discrimination or because they have inherently learned it from their environmental surroundings. Regardless, professionals need to help these students become aware that constantly worrying that others will react harshly to them, make jokes about their ethnic background, or somehow influence their ability to succeed is a form of negative thinking (Hofmann, Asnanni, Vonk Sawyer, & Fang, 2012). Because these adolescents are engaging in negative thinking (overgeneralization, catastrophizing, dichotomous reasoning), they may be more prone to engaging in a self-fulfilling prophecy (Guyll, Madon, Prieto, & Scherr, 2010). These adolescents may believe that they will be discriminated against, thus they will begin to act in a way that they believe others are expecting them to behave or they may begin to make quick judgments against others from different backgrounds as a means to protect themselves from these anticipated encounters with discrimination. Professionals need to help these students develop more balanced thinking patterns so that they can not only be more present-oriented but so that they can be more open and receptive to encounters with those from different cultural backgrounds. Using cognitive behavioral techniques, professionals can assist adolescents track to their thinking patterns and then begin to engage in alternative and more balanced thinking habits so that they will no longer be limited by these automatic thoughts that they will endure a negative encounter and be discriminated against (Hofman et al, 2012).

As many Mexican American students face some form of discrimination in their lives, professionals need to help provide students with the necessary tools to successfully cope with these encounters in a healthy way. For instance, role-playing has been used effectively with adolescents (Aboud, Levy, & Oskamp, 2000). Training to help students practice social-cognitive skills and engage in role-playing can serve as meaningful interventions to reduce the negative effects of experiences related to discrimination. Professionals can have these students engage in role-plays together in which they portray an encounter with discrimination and brainstorm about constructive ways to deal with the situation. These adolescents can also discuss what would be unhealthy and unhelpful ways one could deal with discrimination to provide them with an increased recognition of how destructive it can be.

Peer stress was found to be associated with depressive symptoms as well, although the relationship was only significant for boys. This is very important for professionals to consider when working with Mexican American adolescent boys because literature has shown that increased endorsement of depressive symptoms can put these kids at risk for attempting suicide, substance abuse issues, and academic problems (Roberts & Chen, 1994; Hallfors et al., 2004; Fletcher, 2008). One way professionals can help these students who are experiencing ethnic related peer stress is to help them explore their interpretations about gender roles and norms based on their cultural background. By encouraging these boys to identify what it means to "act White" or "too traditional" and to not be accepted because of their ethnicity, professionals will gain insight into the gender role socialization of these boys and how influential peers are on

this process for Mexican American boys. This process is helpful because it allows professionals to determine whether these adolescent boys are experiencing positive or negative peer pressure.

Second, professionals can work to empower students to find ways to be true to themselves rather than trying to act how their peers expect them to. Assertiveness workshops can help students communicate with their peers and effectively gain more control over their feelings and behaviors.

Finding that self-esteem could buffer against the negative effects of peer stress for girls is also very important. It is recommended that professionals work together to help promote self-esteem levels in these Mexican American girls because it can potentially serve as a protective factor against the development of depressive symptomology if they are undergoing considerable peer stress. Since girls' self-esteem is considerably shaped by external factors that can potentially make them more vulnerable to negotiating their self-regard, it may be helpful for these girls to enhance their internal evaluations and the impact they have on their self-esteem. For example, professionals can help these girls engage in daily positive affirmations in which the girls reflect on reasons they are satisfied with themselves, reasons they are proud of themselves, and good qualities they feel they possess. By increasing these girls' positive self-talk, they will learn to deflect any negative evaluations from their peers and environmental surroundings. Additionally, they will gain the skills needed to develop into more self-accepting individuals.

Limitations

There are a few limitations within this study that need to be noted. Firstly, the participants of this study were students attending a high school in a small rural town of South Texas. It is possible that these Mexican American students will have responded differently than those who attend a high school farther from the Texas-Mexico border. Mexican American adolescents attending a predominately White high school may report different levels of bicultural stress in comparison to these participants who live in a town where the majority of the population is comprised of Mexican Americans. This is important to take into consideration because it may affect generalizability. Additionally, this study had a limited number of participants for each group. The limited size of the groups of adolescent boys and girls could potentially limit the generalizability and may have impacted the power of the statistical analyses of this study.

An additional limitation is that one of the important bicultural stressor factors, monolingual stress, was not measured very well. The items on the monolingual stress subscale had the lowest coefficient alpha (.46). The findings of this study about this subscale may not be reliable because of the low alpha. This is not typical in other studies given that there is limited research available in which this subscale was examined on it's own. Typically, other studies use the items from this subscale in addition to other scales to conduct a factor analysis and assess for stress related to the experiences presented with this monolingual stress subscale. The four items that comprised this factor were found to have a statistically significant correlation with self-esteem levels and endorsed depressive symptoms for Mexican American boys only. The items on this scale may not

have accurately assessed Mexican American girls experiences and the stress that may result from having to engage in language brokering and feeling pressured to be fluent in both Spanish and English. Given that Mexican American girls' self-esteem seems interrelated to their relational statuses and ability to serve roles (e.g., translator for parents), this scale may not have fully assessed how this interconnects with stress related to language.

Similarly, another limitation is recognizing that there may be gender differences in the types of peer stress that these adolescent girls and boys endorse. Rose and Rudolph (2006) discuss how there are significant differences in peer relationships amongst young boys and girls and focus on exploring the different domains within their relationship processes. Overall, the bicultural stress scale seeks to shed light on the unique stressors experienced by Latina/o individuals who are trying to navigate being part of two cultural worlds (Romero & Roberts, 2003). However, it would be helpful for this scale to be built upon to attend to the unique developmental processes of a Mexican American adolescent and the roles, transitions, and context that capture their experience.

Additionally, another limitation of this study is the lack of attending to aspects of acculturation, both behavioral and cognitive, and how this may have influenced the findings of this study. Given that this study's sample has such variation amongst generation levels, each of these Mexican American students' acculturation style is likely effecting how they experience bicultural stress within a predominantly Hispanic town. Berry et al. (1986) talks about the four types of acculturations styles (i.e., acculturation,

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assimilation, separation, and marginalization) and it would be helpful to use this bi-dimensional model of acculturation to test for potential within group differences.

Lastly, another limitation that needs to be noted is that this study did not include a general stress variable to evaluate both Mexican American boys and girls current stress levels. This is important to address as including a general stress variable could have been used to determine how much of the effect was related to general stress and how much was attributed specifically to the bicultural stressors. It would help to establish a non-stressed control group based on scores to an instrument that assesses an individuals reported levels of generalized stress (e.g., Perceived Stress Scale by Cohen, Kamarck, & Mermelstein) as this could help to obtain insight into how much these students appraise situations as stressful. Students with a lower tolerance to stress may be more likely to endorse the different bicultural experiences depicted in the Bicultural Stress Scale as "very stressful," which may influence the effects of this predictor variable on depressive symptoms for this population.

Overall, future studies may benefit from the findings of this research and are encouraged to test the diathesis-stress model with a large sample of students from diverse cultural settings and context. Additionally, use of a generalized stress questionnaire will help to control the groups and to gain further insight into the effects of bicultural stressors on depressive symptoms within Mexican American adolescents.

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APPENDIX

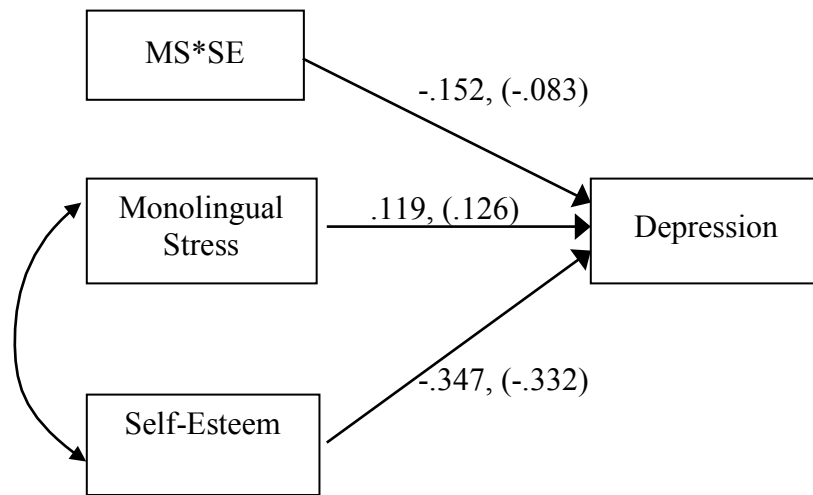Figure 1.

Path Model of Monolingual Stress for Boys

Figure 2.
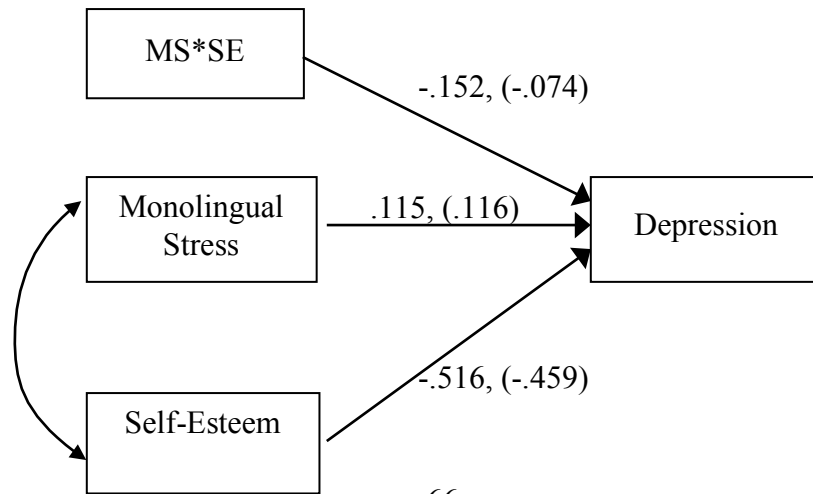
Path Model of Monolingual Stress for Girls

Figure 3.
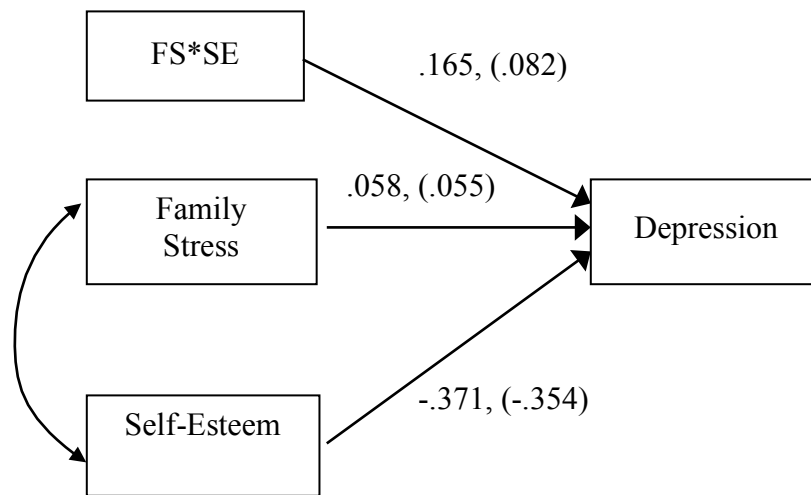
Path Model of Family Stress for Boys

Figure 4.

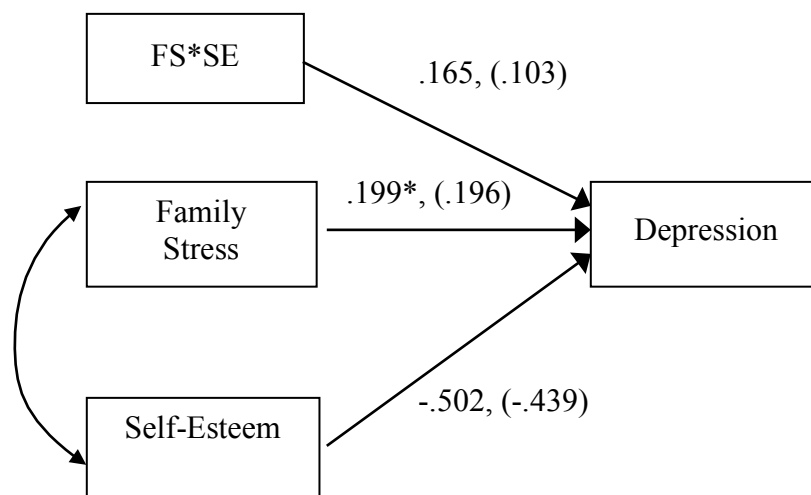*Path Model of Family Stress for Girls*
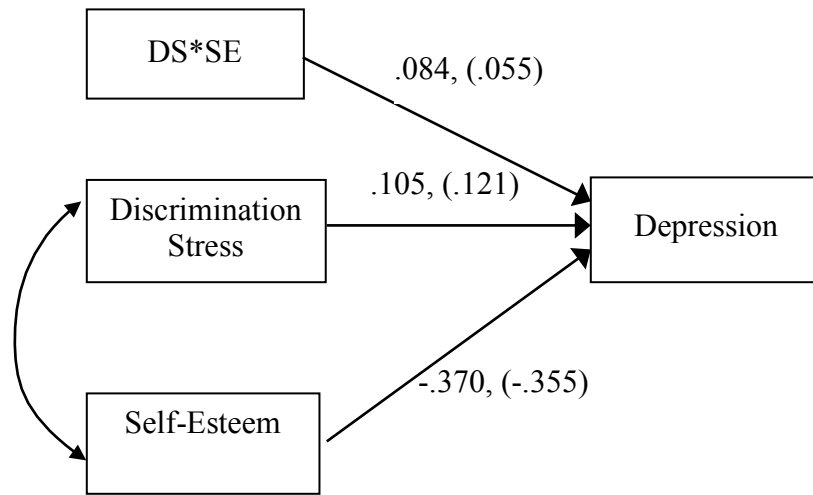
Figure 5.

Path Model of Discrimination Stress for Boys

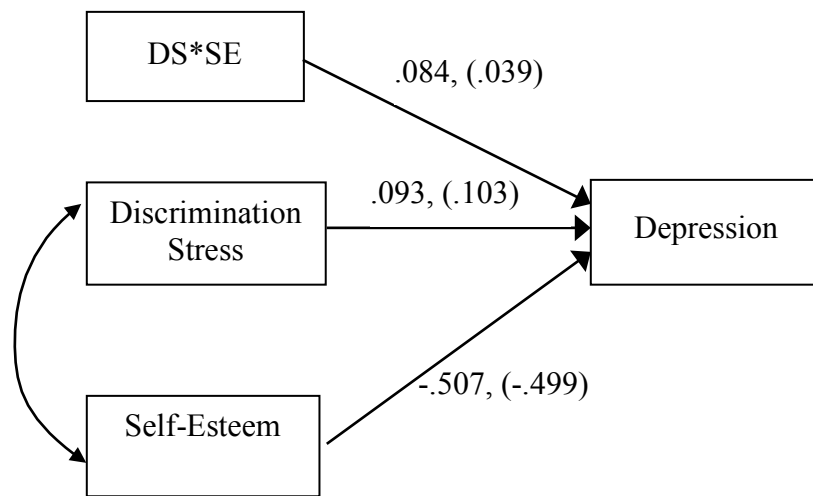Figure 6.

Path Model of Discrimination Stress for Girls
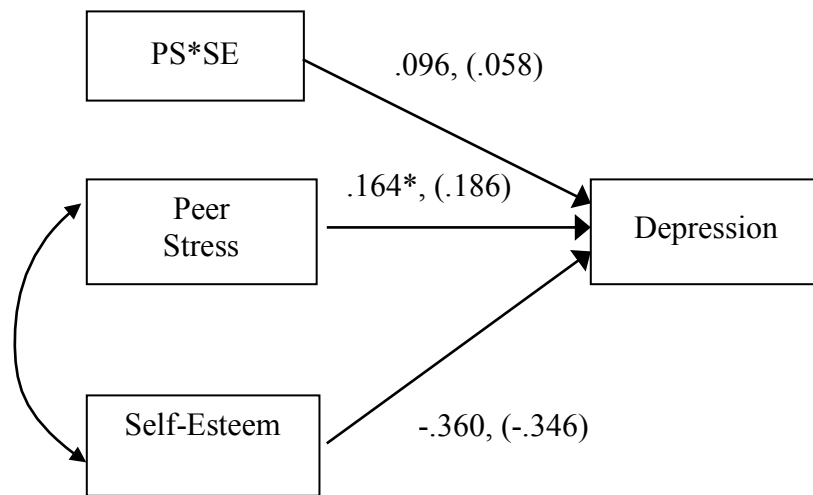
Figure 7.

Path Model of Peer Stress for Boys

Figure 8.

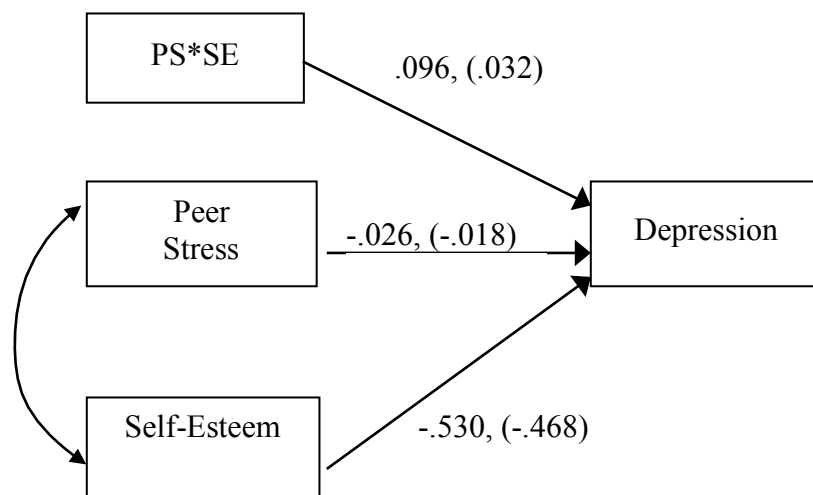*Path Model of Peer Stress for Girls*

Table 1

Sample Characteristics (*n* = 191)

	%	M	SD
Age		16.66	1.37
Gender			
Female	51.3		
Male	48.7		
Generation Status			
First	10.4		
Second	47.3		
Third	15.4		
Fourth	14.8		
Fifth	12.1		
Grade			
9th	23.9		
10th	17.0		
11th	25.5		
12th	33.5		