

# Religious Coping and Social Support as Mediators and/or Moderators and Acculturative Stress in a Latino Community Sample

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## Recommended Citation

Vasquez, Priscilla, "Religious Coping and Social Support as Mediators and/or Moderators and Acculturative Stress in a Latino Community Sample" (2010). *Master's Theses (2009 -)*. Paper 71.  
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RELIGIOUS COPING AND SOCIAL SUPPORT AS MEDIATORS AND/OR  
MODERATORS AND ACCULTURATIVE STRESS IN A  
LATINO COMMUNITY SAMPLE

by

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A Thesis submitted to the Faculty of the Graduate School,  
Marquette University,  
in Partial Fulfillment of the Requirements for  
the Degree of Master of Science

Milwaukee, Wisconsin

December 2010

ABSTRACT  
RELIGIOUS COPING AND SOCIAL SUPPORT AS MEDIATORS AND/OR  
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Priscilla Vasquez, B.A.

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This study examined whether religious coping and social support are moderators and/or mediators between acculturative stress and psychological distress in a Latino community sample. Particularly, the buffering model, the deterioration model, and the counteractive model were tested. Two hundred and twenty-eight Spanish-speaking and English-speaking participants filled out surveys, and it was found that both religious coping and social support mediated the relationship between acculturative stress and psychological stress. However, the results did not support any of the coping models. This study shows that religious coping and social support are associated with an increase in psychological distress.

## ACKNOWLEDGMENTS

Priscilla Vasquez, B.A.

I am thankful to God for opening this door of opportunity for me. I would like to thank my wonderful family– José, Georgia, Yvette, Yvonne, Joseph, and Miguel– for their prayers and continued support that helped me throughout my educational career. Thank you for believing in me. I would like to thank my graduate school mentor, Dr. Torres, for guiding me and encouraging me to think critically on Latino mental health issues. I also would like to thank the rest of my thesis committee for their valuable feedback.

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## Religious Coping and Social Support as Mediators and/or Moderators and Acculturative Stress in a Latino Community Sample

The U.S. Census Bureau reports that Latinos are the largest minority group in the United States, and this group is growing at a much faster rate compared to the population as a whole (2008). It is projected that within the next 50 years, Latinos will make up approximately 25% of the U.S. population (U.S. Census Bureau, 2004). Although the Latino population is growing in the U.S., there is both a lack of availability of mental health services for Latinos (Derose & Baker, 2000) and a paucity of knowledge concerning the factors that improve the mental health of this group (Aguirre-Molina, Molina, & Zambrana, 2001). The statistics provided by the U.S. Census Bureau and this lack of knowledge of Latino mental health should motivate researchers to study factors that improve or effect the mental health of Latinos in order to increase awareness in communities and ultimately to better serve the mental health needs of Latinos living in the U.S.

Acculturative stress is a stressor that Latinos may experience as a byproduct of adapting to a new culture. This can often stem from discrimination, language difficulties, and incongruent values between the individual and individuals in the host country (Gil, Vega, & Dimas, 1994). Research has shown that acculturative stress is associated with psychological distress, such as anxiety and depression, in Latinos, (Hovey & Magaña, 2002; Hovey & Magaña, 2003). Latinos may turn to resources to help them cope with such stress. Two types of coping styles that Latinos may use when faced with stress are social support and religious coping. However, studies have produced mixed results regarding whether or not social support is predictive or associated with psychological

well-being in Latinos (Dunn & O'Brien, 2009; Vaughn & Roesch, 2003; Crockett, Iturbide, Torres Stone, McGinely, Raffaelli, & Carlo, 2007; Hovey & Magaña, 2002). Also, religious coping has not received much research in Latino populations in the context of acculturative stress. This is surprising given the central role of religion in the lives of Latinos (Atkinson, 2004).

One way of addressing the mental health needs of Latinos is understanding coping mechanisms they use to deal with acculturative stress given that it is related to poor mental health in Latinos. The inconsistent results concerning social support and the paucity of research regarding religious coping demonstrate a necessity to study such variables. There are different types of coping models that explain the relationship between stressors, resources, and psychological distress, but there is not a consensus regarding which model best explains how distress is exacerbated or reduced in Latinos after experiencing a specific stressor, such as acculturative stress, and when using a specific resource, such as social support or religious coping (Ensel & Lin, 1991). Specifically, it would be beneficial to know whether, if at all, religious coping or social support are mediators or moderators to the relationship between acculturative stress and psychological distress in Latinos. The implications of knowledge that would be acquired through research could guide mental health treatment for the growing Latino population being exposed to acculturative stress.

## **Literature Review**

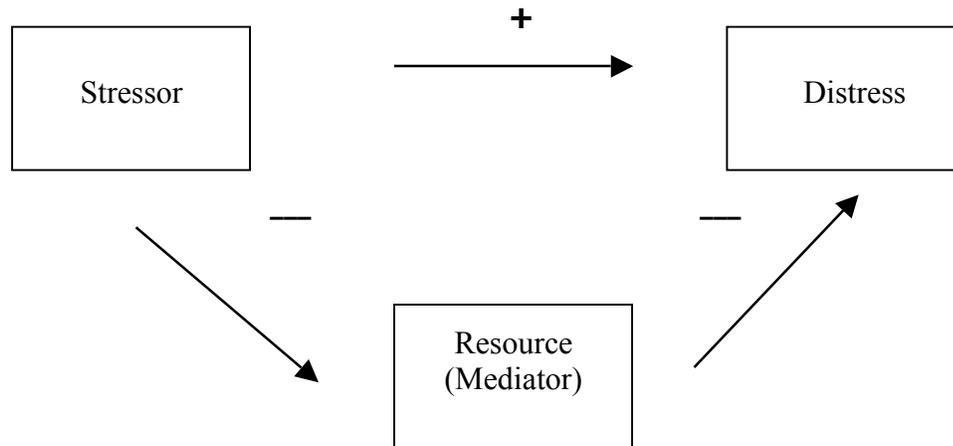
### **Coping Models**

During the 1970s, researchers understood there was a relationship between stress and psychological distress; when individuals experienced stress, they also experienced

elevated levels of psychological distress (Tausig, 1986). However, during this era, researchers began to focus on how individuals used psychosocial resources, such as receiving support or comfort from a social network, to cope with stressors in their environments (Cassel, 1976). Since the 1970s, researchers have identified other types of resources, and different models have been developed to explain coping mechanisms. The general and most common way of conceptualizing coping is viewing resources as intervening factors. In other words, a resource is considered an intervening factor because it is elicited after a stressor is experienced in an individual in order to help cope with the stressful event (Ensel & Lin, 1991). Causally speaking, a stressor is first experienced, which then triggers an individual to use a resource to manage psychological distress.

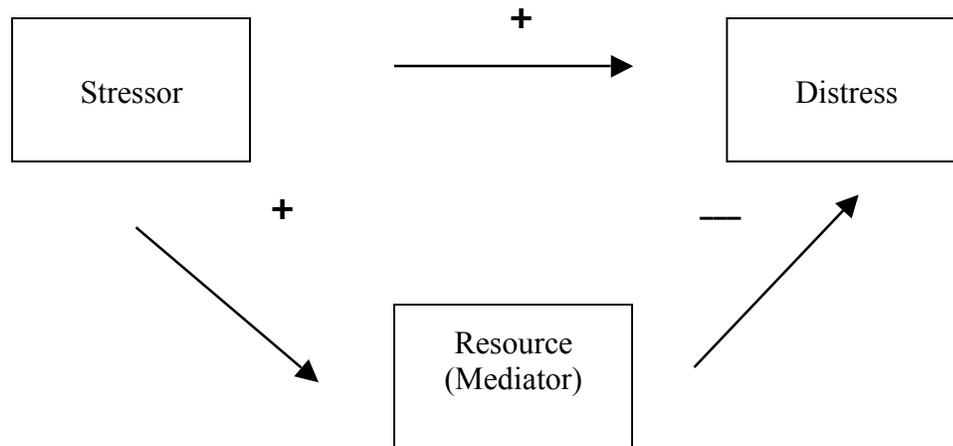
Ensel and Lin have identified three types of coping models: the deterioration model, the counteractive model, and the buffering model. The first two models describe a resource as a mediator. A mediator is a variable that explains the relation between a predictor and outcome variable (Baron & Kenny, 1986). The last model describes a resource as a moderator. A moderator is a variable that alters the strength and/or relationship between a predictor and outcome variable (Baron & Kenny, 1986). In the deterioration model, a stressor weakens a resource (see Figure 1). Low levels of a resource lead to higher distress while high levels of a resource lead to lower distress. The resource mediates the relationship between the stressor and distress. In the counteractive model, a stressor is related to high levels of a resource (see Figure 2). In other words, after experiencing a stressor, high levels of a resource is used to cope with the stressor. High levels of a stressor are related to low levels of distress. Like the deterioration model,

## Deterioration Model



*Figure 1.* A coping model with a resource as a mediator. In the deterioration model, an increase in a stressor is associated with a decrease in a resource. An increase in a resource is associated with a decrease in distress. Without the mediator, an increase in a stressor is associated with an increase in distress.

## Counteractive Model



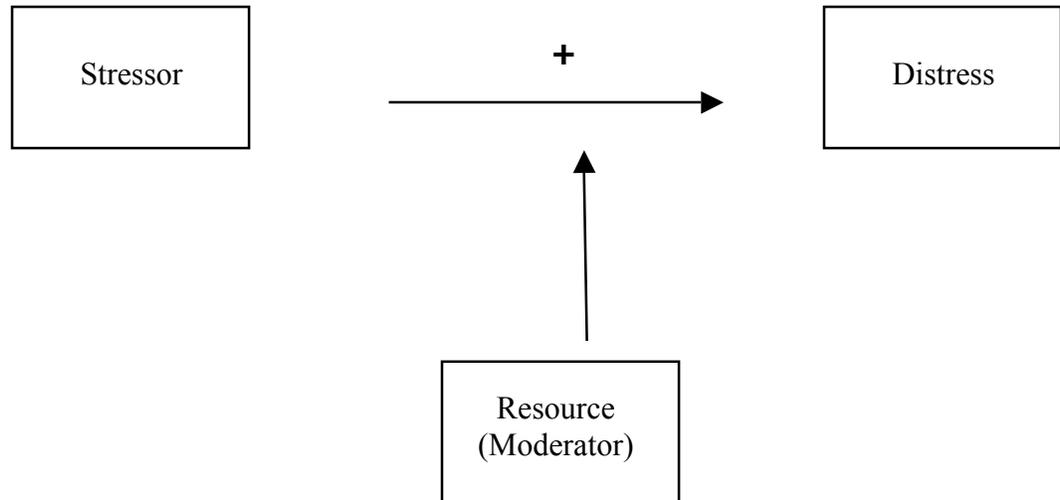
*Figure 2.* A coping model with a resource as a mediator. In the counteractive model, an increase in a stressor is associated with an increase in a resource. An increase in a resource is associated with a decrease in distress. Without the mediator, an increase in a stressor is associated with an increase in distress.

a resource mediates the relationship between the stressor and distress. Unlike the deterioration model, a resource is not reduced after experiencing a stressor, but rather is mobilized within the individual to cope with the stressor. The last example of the three coping models is the buffering model. This model postulates that distress level will be high in the presence of a stressor only when there are low levels of a resource (see Figure 3). Thus, a resource moderates the relationship between a stressor and distress only when there is a deficiency of a resource. In these models, stressors causally precede the use of resources in individuals.

Ensel and Lin tested these models using a three-wave health study in New York between 1979 and 1982 and used multistage probability sampling. They tested social and psychological resources (i.e., social support and self-esteem) and social and physiological stressors (i.e., undesirable life events and diagnosed illnesses). Depression was used as an indicator of distress. Their results showed support for the deterioration model; undesirable life events negatively affected social support, thus confirming the deterioration model.

Researchers have also looked at coping models used by minority populations. Bierman (2006) found that attending religious services buffered the effects of discrimination on mental health for African Americans. In a sample of Latino college students, active coping moderated the effects of acculturative stress on depression and anxiety. Parental support moderated the relationship between acculturative stress and depression and anxiety while peer support moderated the relationship between acculturative stress and anxiety only (Crockett, Iturbide, Torres Stone, McGinley, Raffaelli, & Carlo, 2007). These results support the buffering model of coping in a

## Buffering Model



*Figure 3.* A coping model with a resource as a moderator. In the buffering model, the impact of acculturative stress on psychological distress depends on the amount of social support or religious coping utilized by the individual. Acculturative stress will have a positive impact on psychological distress only when there is a lack of resources, such as social support or religious coping.

African American and Latino sample. However, it is unknown which of the three models (i.e., the deterioration model, the counteractive model, or the buffering model) best explain coping mechanisms within Latinos when they use other resources, such as social support in general and religious coping, after experiencing acculturative stress.

### **Acculturative Stress**

When Latinos, whether they be foreign-born or not, have contact with the dominant culture in the U.S., there could be a change in their cultural values. This process has been referred to as *acculturation* (Moyerman & Forman, 1992). Evidence that a Latino is experiencing acculturation is acquisition of the English language and adoption of U.S. cultural beliefs, practices, and values (Rodriguez, Myer, Mira, Flores, & Garcia-Hernandez, 2002). Latinos in the U.S. may experience acculturative stress, which arises from the acculturation process of living in the U.S. (Williams & Berry, 1991). When living in a new country, such as the U.S., many immigrants experience that their native cultural groups' norms and values are incompatible with that of the host country. Hence, acculturation can be a stressful process for recent immigrants because of such incompatibility. Acculturative stress is not only experienced by immigrants, but can also be experienced by Latinos born in the U.S. The cultural values that U.S.-born Latinos learn from their families may clash with the U.S.'s values that they are exposed to at school, work, etc. (Roccas, Horenczyk, & Schwartz, 2000). Latinos also experience acculturative stress when faced with discrimination, difficulty finding a job in a new country, and language difficulties (Gil, Vega, & Dimas, 1994; Berry, 1998). Williams and Berry (1991) report that acculturative stress leads to higher levels of anxiety and depression, psychosomatic symptoms or identity confusion.

When looking at research on Latinos and mental health, acculturative stress has also been found to be related to greater incidences of post traumatic stress disorder (Pole, Best, Metzler, & Marmar, 2005). Hovey (2000a & 2000b) has found that acculturative stress is related to suicide ideation in Mexican immigrants and Central American immigrants. Hovey and Magaña (2000) studied Mexican immigrant farmworkers and found that those who experience acculturative stress also experience elevated levels of anxiety and depression. Another study used a sample composed of Mexican college students who were migrant farmworkers (Mejia & McCarthy, 2010). The researchers examined migrant status (migrant, nonmigrant), gender (female, male) and differences on acculturation, depression, and anxiety. Results indicated that compared to nonmigrants, migrant students experienced higher levels of acculturative stress. Also, compared to women, men reported higher levels of acculturative stress. Another study examining Mexican American college students found that acculturative stress was associated with increased levels of anxiety and depression (Crockett, Iturbide, Torres Stone, McGinely, Raffaelli, & Carlo, 2007).

Research has also shown that there is a relationship between acculturative stress and Latino's perception of loss of social support (Berry, 1998). Crocket et al.'s (2007) study on college students also found that parental support moderated the relationship between acculturative stress and both anxiety and depressive symptoms. They also found that peer support only moderated the relationship between acculturative stress and anxiety symptoms. Acculturative stress undoubtedly has a detrimental impact on Latinos, and it is important to learn more about resources Latinos use to cope with such stressor.

### **Social Support**

As mentioned previously, social support was one of the first resources psychologists studied in the late '70s within the context of the stress and coping paradigm (Cassel, 1976). Social support can be defined as “a psychological phenomenon in which social interactions provide individuals with assistance or embed them in social relationships which are perceived to be loving, caring, and available” (Dunn & O'Brien, 2009, p. 206). This resource includes a wide network of social support that can come from both peers and family members (Dunn & O'Brien, 2009). Social support can be beneficial to individuals because it provides them with a network of people who care and demonstrate love, and they feel reassurance of being able to rely on others during times of need (Dunn & O'Brien, 2009; Finch & Vega, 2003). Early studies regarding social support in the general population have described this resource as a buffer; specifically, social support has been found to prevent a stressor from being appraised as stressful, it can minimize the perceived importance of the stressor (Finch & Vega, 2003), or it can facilitate healthy behavioral responses (Cohen & Willis, 1985).

Recent research suggests that social support has also been found to be a buffer, or moderator, in Latino samples. Rodriguez et al. (2003) found that support from friends, but not from family, predicted lower psychological distress in Latino college students. The authors believe that this may be due to the fact that peers are more readily available in a college environment. A study by Finch and Vega (2003) examined whether social support (specifically, emotional social support, instrumental social support, religious support seeking, and the size of peer and family groups in the U.S.) was as a moderator or mediator between specific factors that may cause acculturative stress (i.e., discrimination, legal status, and language conflicts) and physical health. They reported that instrumental

social support (a type of social support that provides the individual with a benefit, such as loaning money or comforting them) and religious coping moderated the effect of discrimination on physical health in Mexican-origin adults residing in California. In another study, Hovey and Magana (2002) examined a group of immigrant farmworkers and found that they had high levels of anxiety and it was related to ineffective social support. Although social support may be a protective factor that is available for Latinos in general, it could be that social support may be deficient in immigrants since relocation may disrupt their social ties (Contreras, Lopez, Rivera-Mosquera, Raymond-Smith, & Rothstein, 1999).

Social support not only is provided by peers but can also come from family members. In Latino culture, there exists the value of *familismo*, which is a profound sense of family and loyalty among family members (Atkinson, 2004; Marin & Marin, 1991). Research has shown that there is a link between lower levels of depressive symptoms and emotional support from family members and better family functioning (Hovey & King, 1996). As mentioned previously, Crockett et al. (2007) found that parental support buffered the effects of high acculturative stress on anxiety and depressive symptoms in Mexican American college students. Mulvaney-Day, Alegria, and Sribney (2007) used data from the National Latino and Asian American Study (NLAAS) and found that family support and friend support was related to self-rated physical and mental health. Another study using the same dataset found that family cohesion, or an emotional bonding within family members (Olson, Russell, & Sprenkle, 1982), was associated with lower psychological distress (Rivera, Guarnaccia, Mulvaney-Day, Lin, Torres, & Alegria, 2008). Thus, social support, whether it be from peers or family members, seems to be a

protective factor for Latinos overall and is described as being a moderator, but there is a lack of research that has looked at social support as a mediator. The only study that has looked at social support as a potential mediator or moderator is the Finch and Vega (2003) study, but their outcome was physical health, not mental health. Moreover, the researchers broke down social support into different components and ran analysis on each one instead of looking at social support as a general construct. A study by Dunn and O'Brien (2009) found that social support did not predict psychological well-being in Latino immigrants. More research is needed to clarify the relationship between social support and both acculturative stress and psychological distress.

### **Religious Coping**

*Religious coping* can be defined as “the use of cognitive or behavioral strategies based on religious beliefs or practices (e.g., praying, seeking comfort or strength from God; Abraido-Lanza, Vasquez, & Echeverria, 2004, p. 91). Most of the research on religious coping has been done on European Americans, and there has been a lack of consensus regarding the relationship with religious coping and mental health in such group. For example, a metaanalysis by Wong, Rew, and Slaikeu (2006) showed that high levels of religiosity/spirituality are associated with better mental health in adolescents. They defined religiosity as “one’s relationship with a particular faith tradition or doctrine about a divine other or supernatural power” (Reich, Oser, & Scarlett, 1999). Spirituality was defined as “the intrinsic human capacity for self-transcendence, in which the self is embedded in something greater than the self, including the sacred” and which motivates “the search for connectedness, meaning, purpose, and contribution” (Benson, Roehlkepartain, & Rude, 2003, p. 205). They included studies that had at least one

quantified religiosity/spirituality variable. On the other hand, a study by Hovey and Seligman (2007) looked at religious coping, family support, anxiety and depression in college students. The researchers found that there was no relationship between religious coping and anxiety and depression among college students. However, family emotional support was significantly related to anxiety and depression.

The few studies that have looked at religious coping in ethnic minority samples have mostly focused on African Americans, and results indicate that it has positive effects on mental health. Holmes and Hardin (2009) compared religiosity (which was a variable measuring participants' perceptions of a relationship with God), meaning of life (which was a variable looking at goals and a sense of direction and does not refer to God or a higher being), and the mental health of African American and European American college students. In European American college students, there was little variance in psychological distress explained by religiosity, and general meaning in life predicted significant variance beyond that explained by religiosity. In African American college students, there was little variance in psychological distress explained by general meaning in life, and religiosity predicted significant variance beyond that explained by general meaning in life. The results of this study indicate that it is important to consider ethnic group differences when looking at religiosity and mental health.

Brown, Caldwell, and Antonucci (2008) compared European American and African American young grandmothers on religiosity, family conflict, and depressive symptoms. These young grandmothers had daughters who were teenaged mothers. In both groups of grandmothers, religiosity was associated with less depressive symptoms. However, in African American grandmothers, religiosity was a moderator for conflict

with their teenaged daughters and depressive symptoms. Specifically, highly religious African American grandmothers experiencing low conflict with their daughters and reported lower depressive symptoms than those who were less religious. This moderating effect of religion was not found in European American grandmothers. Religious coping has also been studied in younger African American populations. Goldston et al. (2008) found that African-American adolescents' involvement in the Black church has been a protective factor to suicidality. Religious coping has been studied in elderly African American samples as well. Lee and Sharpe (2007) found that religious coping was more common among elderly African Americans than European Americans while social support was more common among elderly European Americans than African Americans. Results indicated that the positive effects of religious coping are more prominent in African American elderly.

There is a paucity of research regarding religious coping and Latino mental health. The few studies that exist, however, have contradictory conclusions regarding these two variables. Weisman, Rosales, Kymalainen, and Armesto (2005) looked at European American, Latino, and African American schizophrenic patients and their relatives and found that religiosity was not associated with the emotional distress of relatives nor was it associated with schizophrenic patients' psychiatric symptoms. A study by Dunn and O'Brien (2009) looked at Central American immigrants living in the D.C. area and their use of religious coping. They looked at two dimensions of religious coping: positive (for example, redefining a stressor as potentially beneficial) and negative (for example, thinking that some things are out of God's control; Pargament, Koenig, & Perez, 2000). Contrary to researchers' hypothesis, perceived social support and both

positive and negative religious coping did not contribute to the prediction of psychological health as measured by the Brief Symptom Inventory (BSI-18). This sample on average reported low levels of stress and were on average psychologically healthy, perhaps indicating that they were a resilient sample.

A study by Ellison, Finch, Ryan and Salinas (2009) looked at different dimensions of religious coping in a Mexican-origin sample residing in the Fresno, CA area. The three dimensions were religious attendance (i.e., frequency of church attendance), religious importance (i.e., how important religion is to the participant), and consolation-seeking (i.e., resorting to religion during a difficulty). An increase in religious salience was associated with less depressive symptoms. They also found that there is no association between depressive symptoms and seeking consolation from religion. In addition, religious attendance also was associated with a decrease in depressive symptoms, but once social support was controlled, this association no longer existed. They also predicted that the three dimensions of religiousness would moderate the relationship between depressive symptoms and both discrimination and acculturative stress such that the negative effects of discrimination and acculturative stress would be weaker among more religious persons. In this study, consolation-seeking was not used as an interaction term because it was not associated with depressive symptoms. The researchers did not find significant interactions between religious attendance and religious importance and discrimination. They found interactions for religious attendance and religious importance and acculturative stress, but it was not in the direction that they predicted; high levels of religious attendance and religious importance was associated with high levels of acculturative stress and depressive symptoms. In other words, they

found evidence for a stress-exacerbating rather than a stress-buffering effect of religiousness.

Levin, Markides, and Ray (1996) conducted another study looking at religious attendance and Latino psychological well-being. The three dimensions of well-being included life satisfaction, positive affect, and negative affect. Their study was both cross-sectional and longitudinal in that it looked at the religious attendance of three generations of Mexican Americans (older participants, their middle aged children, and their adult grandchildren) who were followed up 11 years later. They found that in the two oldest generations, there was an association between religious attendance and life satisfaction. Moreover, for the youngest generation, religious attendance had a salutary longitudinal effect on negative affect.

Very little research has also been conducted on Latinos who migrate within the U.S. to make a living in agriculture. Farmworkers are often exposed to many stressors, such as discrimination, dangerous working conditions, and substandard housing and sanitation labor camps (Hovey & Magaña, 2002). Hovey and Magaña (2002) have researched the predictors of anxiety symptomatology in Mexican migrant farmworkers in the Midwest. To measure religiosity, the researchers asked participants how religious they are and to what extent does religion influence their life. Some of the predictors that were associated with high anxiety levels in these Mexican migrant farmworkers were low religiosity as well as high acculturative stress. Although there is some evidence that suggest otherwise, it appears that overall, religious coping is beneficial to Latinos. More studies examining how Latinos use religious coping is needed in order to bolster the hypothesis that it improves mental health when Latinos are faced with a stressor.

## **Gender and Acculturative Stress, Psychological Distress, Social Support, and Religious Coping**

A more nuanced understanding of the aforementioned variables can be obtained by paying attention to gender differences. Studies conducted mostly on Caucasians have found that women have higher rates of depression and depressive symptoms (Kuehner, 2003; Kessler, et al., 1994). Recently, studies have looked at gender differences in Latino mental health. An epidemiological study on prevalence rates of mental disorders in Latino subgroups found that Latina women have higher prevalence of depression compared to Latino men (Alegria, Mulvaney-Day, Torres, Polo, Cao, & Canino, 2007). Other research has also shown that compared to Latino men, Latina women experience greater psychological distress and lower life satisfaction across Latino subgroups (Rivera, Guarnaccia, Mulvaney-Day, Lin, Torres, & Alegria, 2008). However, a study by Aranda, Castaneda, Lee, and Sobel (2001) found that there is no gender difference in depressive symptoms among Mexican American men and Mexican American women; results could have been due to a non-random sample or a sample size not large enough to detect a statistical difference. They did find, however, that compared to Mexican American men, Mexican American women reported higher levels of social support from spouses and relatives and that family cultural stress-- a subscale in the Hispanic Stress Inventory (HSI; Cervantes, Padilla, & Salgado de Snyder, 1991), which is a measure of acculturative distress-- predicted depressive symptoms. Although this subscale in the HSI predicted depression in Latina women, a study by Mejia and McCarthy (2010) revealed that male migrant farmworkers who were students experienced more acculturative stress than their female counterparts. Another study by Golding and Burnam (1990) found that

Latina women who have a social network consisting of friends and relatives and the frequency of the interaction with people in this network was associated with lower levels of depressive symptoms (Golding & Burnam, 1990). There is a paucity of research studies examining gender differences in religious coping. Researchers have hypothesized that religiosity may play a central role in Catholic Latina's lives because venerating the Virgin Mary may empower them and give them a sense of spiritual status, which is appealing to Latina women because other aspects of cultural tradition or social circumstances (e.g., patriarchy and discrimination) may be marginalizing for them (Matovina, 2005). A study by Ellison, Finch, Ryan, and Salinas (2009) found that religious salience in Latina women was associated with a decrease in depressive symptoms. Because of the importance that religiosity has in the lives of Latina women, it could be expected that religious coping is more common among Latina women. However, more studies are needed to confirm this assertion. The few studies that exist examining the aforementioned variables seem to suggest that Latina women have high levels of psychological distress, social support and religious coping and Latino men have higher levels of acculturative stress, although more studies are needed to replicate such studies to validate findings since studies that have looked at these variables are few. Particularly, there is a need for research looking at gender differences in religious coping since there seems to be less research in this area.

### **Purpose**

The purpose of this study is to explore various coping models— the deterioration, the counteractive, or the buffering model—and determine which best describes the influence of social support and religious coping on the relationship between acculturative

stress and psychological distress. Specifically, these models will shed light on whether social support and religious coping are better conceptualized as mediators or moderators. Conducting this study is important because it would provide a nuanced understanding of the mechanisms underlying social support and religious coping. Currently, research suggests that social support is associated with better mental health outcomes in Latinos, but there is little understanding of this coping resource. Also, studying religious coping is important given the central role of religion in the lives of many Latinos and given the paucity of research looking at this variable in Latinos (Atkinson, 2004). Moreover, understanding whether and how Latinos use social support or religion to cope with acculturative stress is critical considering that acculturative stress is associated with psychological distress and given that acculturative stress may be experienced by any Latino in the U.S., regardless of generational status (Williams & Berry, 1991; Roccas, Horenczyk, & Schwartz, 2000). Gender differences will also be studied in the preliminary analysis given the lack of research on the variables used in the present study.

### **Hypotheses**

The current investigation involves secondary data analysis. It is predicted that social support and religious coping will be associated with a decrease in psychological distress. In terms of coping models, there is research evidence that suggests that social coping fits the buffering model, although those studies have not looked at social coping in the context of acculturative stress and psychological distress. Thus, Hypothesis 1 predicts the buffering model will be supported when social support is used as a resource. In other words, social support will moderate the relationship between acculturative stress and psychological distress. In order to test this hypothesis, both moderator (i.e., buffering

model) and mediator (i.e., deterioration model and counteractive model) models will be assessed to know how social support influences the relationship between acculturative stress and psychological distress. With regards to religious coping, there is a lack of research that supports evidence for a coping model. Thus, both moderator and mediator models will be calculated. However, based on the research on African Americans and religious coping (Bierman, 2006; Brown, Caldwell, & Antonucci, 2008), Hypothesis 2 predicts that religious coping will moderate the relationship between acculturative stress and psychological distress, supporting evidence for the buffering model. This study will also examine gender differences. Consistent with prior research, Hypothesis 3 (a) postulates that Latinas will report higher levels of psychological distress (Rivera, Guarnaccia, Mulvaney-Day, Lin, Torres, & Alegria, 2008) and (b) social support (Aranda, Castaneda, Lee, & Sobel, 2001). Hypothesis 3 (c) states that because religiosity is particularly important in Latina women (Matovina, 2005), it is predicted that they will use religious coping more than Latino men. It is also hypothesized in Hypothesis 3 (d) that Latino men will experience greater levels of acculturative stress, which is based on previous research (Mejia & McCarthy, 2010). Finally, Hypothesis 3 (e) predicted that gender will moderate the relationship between acculturative stress and psychological distress such that males will report more psychological distress in the presence of acculturative stress since prior research has shown that compared to Latinas, Latinos experience more acculturative stress. Since Latinos will experience more acculturative stress, they will also experience more psychological distress because prior research has shown that acculturative stress is associated with poor mental health (Pole, Best, Metzler, & Marmar, 2005; Hovey & Magana, 2000).

## Method

### Participants and Procedures

This secondary data analysis study is comprised of a community sample recruited from a health clinic in a Midwestern city. Of the two hundred and twenty-eight participants 60.1% of participants were female ( $n = 137$ ), 35.5% were male ( $n = 81$ ), and 4.4% did not report a gender ( $n = 10$ ). Most participants (61.8%) had annual household incomes of less than \$20,000, and most participants (81.1%) were foreign born. The mean age for this sample was 38 ( $SD = 11.57$ ; see Table 1) years. Participants reported an average of 10 years ( $SD = 3.20$ ) of school and were mostly the first generation in their families living in the U.S. Participants were asked whether they were interested in filling out surveys in the clinic while they waited in the waiting area. Patients and non-patients alike were given the opportunity to participate in the study.

### Materials

**A demographic questionnaire.** Participants filled out a questionnaire asking for gender, date of birth, personal and family income, education level, generation level of living in the US, etc. The demographics questionnaire was available in Spanish or in English.

**The Multidimensional Acculturative Stress Inventory (MASI).** This is an acculturative stress scale created by Rodriguez et al. (2002). Participants responded to 36 statements by indicating on a 6-point scale ranging from 0 (*Does not apply*) to 5 (*Extremely stressful*) whether an event happened to them within the past three months. Examples of items include: “It bothers me that I speak English with an accent,” “I don’t feel accepted by Americans,” and “I feel pressure to learn Spanish.” Principal component

Table 1

*Total and Gender Means of Main Study Variables and Demographic Variables*

Variable	<u>Men</u>		<u>Women</u>		<u>Total</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Acculturative Stress	1.24	0.85	1.27	0.87	1.25	0.85
Psychological Distress	19.15	15.18	23.76	17.51	21.82	16.74
Social Support	1.28	0.86	1.23	0.88	1.25	0.87
Religious Coping	1.49	1.05	1.62	1.09	1.58	1.08
Age	40.47	10.69	36.49	12.02	37.96	11.57
Years in U.S. (foreign born)	13.37	9.75	12.50	10.54	12.75	10.08
Years of School	9.86	2.96	9.68	3.333	9.69	3.20

analysis conducted by Rodriguez revealed four subscales which accounted for 64.4% of the variance: Spanish Competency Pressures (Cronbach's  $\alpha = .93$ ), English Competency Pressures (Cronbach's  $\alpha = .91$ ), Pressure to Acculturate (Cronbach's  $\alpha = .84$ ), and Pressure Against Acculturation (Cronbach's  $\alpha = .77$ ). In total, there were 25 items that loaded on these four scales. Cronbach's alpha for the overall MASI was .90 and the test-retest coefficient was .72. The present study used the MASI in English and in Spanish. Cronbach's alpha for this dataset was .91. Scores are obtained by adding responses to the 25 statements that loaded onto the four subscales in Rodriguez's (2002) study. Scores range from zero to 125, and higher values represent elevated levels of acculturative stress.

**The Brief COPE.** Carver (1997) created a shorter version of the COPE, which has sixty items. In the Brief COPE (BCOPE), there are twenty-eight items grouped into fourteen subscales. The subscales that are used in this study and the reliabilities calculated by Carver include religion (Cronbach's  $\alpha = .82$ ), emotional support (Cronbach's  $\alpha = .71$ ), and instrumental support (Cronbach's  $\alpha = .64$ ). Each of these subscales has two items. For the sake of this study, this scale was provided to participants in English and in Spanish, and the emotional support and instrumental support subscales were combined to form the social support variable. An example of a religious coping item is "I've been praying or mediating." Examples of the using emotional support and using instrumental support include "I've been getting emotional support from others," and "I've been getting help and advice from other people," respectively. Items were answered using a 4-point scale ranging from 1 (*I haven't been doing this at all*) to 4 (*I've been doing this a lot*). Subscale means are calculated to quantify each subscale. The

BCOPE has previously been used on a Latino sample. Strug, Mason, and Auerbach (2009) used the BCOPE with older Hispanic immigrants in New York City to see how they responded to stressors, such as the World Trade Center attack. The authors noted that the scales are internally reliable, as reported by Carver (1997), but did not report reliability for their sample. The present study used this scale in English and in Spanish, and the reliabilities are .79 for the religious coping subscale and .82 for the social support subscale.

**The Brief Symptom Inventory-18.** Derogatis (2000) created the Brief Symptom Inventory-18 (BSI-18). It is used to measure psychological distress. This scale was used in English and in Spanish. There are three subscales-- anxiety, depression, somatization-- and a global severity index (GSI). Scores are calculated by finding the average for each subscale and by finding the overall average of the items for the GSI. Participants report how much distress certain problems have caused them during the past seven days on a 5-point scale ranging from 0 (*Not at all*) to 4 (*Extremely*). Examples of items include: "Feeling no interest in things," "Suddenly scared for no reason," and "Numbness or tingling in parts of your body." The BSI-18 has been used with Central American immigrants in the Spanish language and demonstrated internal validity ranges from .77 to .81 (Dunn & O'Brien, 2009). The alpha coefficient for the present study is .95.

## **Results**

### **Preliminary Results**

Correlations were calculated for each one of the resources (i.e., social support and religious coping), psychological distress, acculturative stress, and demographic variables (i.e., age, years in school, time spent living in the U.S. if foreign born) to assess whether

Table 2

*Correlations between Main Study Variables and Demographic Variables*

Variable	1	2	3	4	5	6
1. Acculturative Stress						
2. Psychological Distress	.35***					
3. Social Support	.20**	.29***				
4. Religious Coping	.17**	.27***	.44***			
5. Age	.13	.06	.00	.06		
6. Years in U.S. (foreign born)	-.18*	-.09	.02	.02	-.08	
7. Years of School	-.02	.02	.15*	.10	-.12	-.08

Note. \*  $p < .05$  \*\*  $p < .01$  \*\*\* $p < .001$

there were associations between the variables. These relationships are depicted in Table 2. Religious coping social support and psychological distress were positively and significantly related to acculturative stress. For foreign-born participants, number of years living in the U.S. was negatively and significantly related to acculturative stress. Social support and psychological distress were positively and significantly related to religious coping. Psychological distress and years in school was also positively and significantly related to social coping. Age was not significantly related to any of the aforementioned variables.

T-tests were also conducted for nativity status (i.e., foreign born or U.S. born) and acculturative stress ( $t(205) = 1.34, p = .180$ ; foreign born:  $M = 1.26, SD = .80$ ; US born:  $M = 1.01, SD = 1.07$ ), psychological distress ( $t(204) = 1.09, p = .278$ ; foreign born:  $M = 22.08, SD = 15.99$ ; US born:  $M = 18.17, SD = 18.27$ ), and religious coping ( $t(203) = -1.14, p = .258$ ; foreign born:  $M = 1.59, SD = 1.09$ ; US born:  $M = 1.86, SD = .98$ ), but there were no significant results, indicating that foreign born or U.S. born Latinos are similar in these variables. However, there was a significant difference in nativity status and social support ( $t(205) = -2.10, p = .037$ ) such that those who are foreign born used less social support ( $M = 1.21, SD = .85$ ) than those who are US born ( $M = 1.61, SD = .95$ ).

T-test comparisons were made for gender and also acculturative stress, psychological distress, social support, and religious coping. There were no significant differences between gender and acculturative stress ( $t(215) = -.28, p = .784$ ; males:  $M = 1.24, SD = .85$ ; females:  $M = 1.27, SD = .87$ ), social support ( $t(215) = .38, p = .707$ ; males:  $M = 1.28, SD = .86$ ; females:  $M = 1.23, SD = .88$ ), and religious coping ( $t(213) = -$

.89,  $p = .376$ ; males:  $M = 1.49$ ,  $SD = 1.05$ ; females:  $M = 1.62$ ,  $SD = 1.09$ ). There was a significant difference between genders with regards to psychological distress,  $t(187.42) = -2.04$ ,  $p = .043$ , such that women ( $M = 23.76$ ,  $SD = 17.51$ ) reported higher levels of psychological distress than men ( $M = 19.15$ ,  $SD = 15.18$ ).

One-way between-groups analysis of variance was conducted for household income and acculturative stress, psychological distress, social support, and religious coping. Household income was divided into three groups: less than \$10,000; more than \$10,000 but less than \$20,000; and more than \$20,000. There was a statistically significant difference in acculturative stress between income categories,  $F(2, 124.78) = 4.46$ ,  $p = .014$ ,  $\eta^2 = .05$ ; Welch's test is reported because Levine's Test of homogeneity of variance was violated,  $F(1, 192) = 3.38$ ,  $p = .036$ . Post hoc comparisons revealed significant differences between household incomes of less than \$10,000 ( $M = 1.48$ ;  $SD = 0.98$ ) and more than \$20,000 ( $M = 1.02$ ;  $SD = 0.77$ ) such that those in the former group experience higher levels of acculturative stress than the latter group. There was no significant difference between each one of the aforementioned income ranges and household income of more than \$10,000 but less than \$20,000 ( $M = 1.19$ ;  $SD = 0.69$ ). There also was a statistically significant difference in psychological distress between income groups,  $F(2, 191) = 3.91$ ,  $p = .022$ ,  $\eta^2 = .04$ , such that those who earn less than \$10,000 ( $M = 26.10$ ;  $SD = 16.54$ ) experience more psychological distress than those who earn more than \$20,000 ( $M = 17.93$ ;  $SD = 14.70$ ). Post hoc comparisons showed no significant difference between either one these income groups and an income range of more than \$10,000 but less than \$20,000 ( $M = 21.03$ ;  $SD = 18.52$ ) for psychological distress. Results did not show statistically significant differences in social support,  $F(2,$

192) = .802,  $p = .450$ ,  $\eta^2 = .01$ , or religious coping,  $F(2, 191) = 0.60$ ,  $p = .550$ ,  $\eta^2 = .01$  across household incomes. A Chi-square test for independence indicated there was no association between household income and both nativity status,  $\chi^2(2, n = 180) = 4.92$ ,  $p = .085$ , Cramer's  $V = .17$ , and gender,  $\chi^2(2, n = 190) = 2.78$ ,  $p = .249$ , Cramer's  $V = .121$ .

Multiple regression assumptions were also calculated in the preliminary analysis. Multicollinearity was assessed by examining Tolerance values. Multicollinearity was not a problem in this dataset because Tolerance values ranged from .89 to 1.00. To examine homoscedasticity, linearity, and normality assumptions, residual scatterplots were plotted against the values of the predicted dependent variable. Scatterplots revealed that these assumptions were not violated. Outliers were assessed by inspecting Mahalanobis distances. The critical chi-square value used for this dataset was 10.828 (Tabachnick & Fidell, 2007), and five cases were removed from the multiple regression analysis because their Mahalanobis distances were greater than this cutoff.

### **Regression Analyses for Moderation**

To further understand the relationship between gender and psychological distress in the presence of acculturative stress, a multiple regression was run to test whether gender moderated the relationship between acculturative stress and psychological distress. Acculturative stress was entered in the first step, explaining 12.1% of the variance in psychological distress,  $F(1, 213) = 29.21$ ,  $p < .001$ . Gender was entered in the second step, and both acculturative stress and gender accounted for 13.7% of the variance in psychological distress,  $F(2, 212) = 16.79$ ,  $p < .001$ . The interaction of gender and acculturative stress, which was entered into the third step, indicated that this model as a

whole accounted for 13.7% of the variance in psychological distress,  $F(3, 211) = 11.17, p = < .001$ . However, the interaction was not significant,  $R^2 \text{ change} = 0.00, F \text{ change}(1, 211) = 0.07, p = .786$ , which showed that gender did not moderate the relationship between acculturative stress and psychological distress. Thus, Hypothesis 3 (e) was not supported. Given this non-significant result and the results of the gender  $t$ -tests, no further statistical tests were done to examine gender in the context of the coping models in the present study.

Regression analyses were calculated so that first the buffering model was tested for social coping and religious coping, respectively, and then the deterioration and counteractive models were analyzed for each aforementioned resource. To test the buffering model in Hypothesis 1 and Hypothesis 2, religious coping and social support were used as the moderating variables in two separate analyses, one for each resource. Religious coping, social support, and acculturative stress were centered in order to reduce multicollinearity. The interaction terms were obtained by multiplying each centered resource by centered acculturative stress. The regressions for testing the buffering model were hierarchical such that acculturative stress was entered in the first block, a resource--religious coping or social support-- was entered in the second block, and the interaction between each resource and acculturative stress was entered in the third block. For the religious coping regression, acculturative stress in the first step accounted for 10.9% of the variance in psychological distress,  $F(1, 215) = 26.27, p < .001$ . Acculturative stress and religious coping accounted for 16.1% of the variance in psychological distress in the second block,  $F(2, 214) = 20.50, p < .001$ . When the interaction between religious coping and acculturative stress was entered in the third block, results indicated the total variance

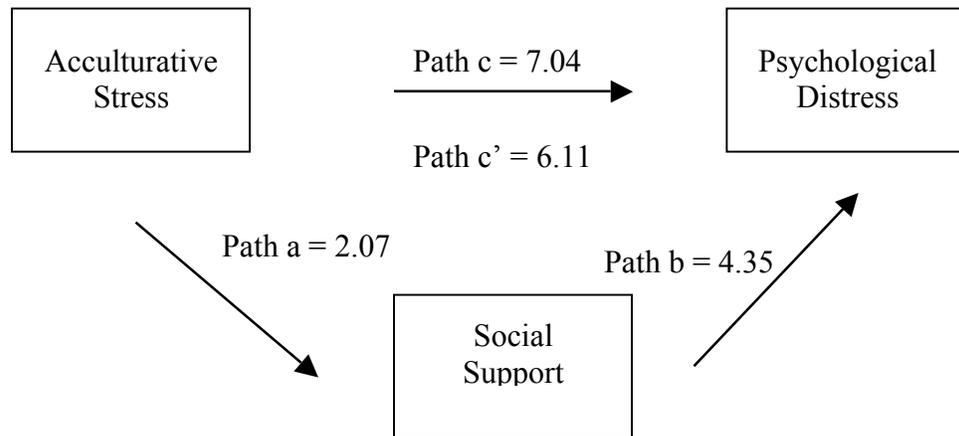
of the model as a whole was 16.1%,  $F(3, 213) = 13.64, p < .001$ . However, the interaction term was not significant,  $R$  squared change = 0.00,  $F$  change (1, 213) = .08,  $p = .774$ , which showed that religious coping did not moderate the relationship between acculturative stress and psychological distress.

For the social support regression, acculturative stress accounted for 11.2% of the variance in psychological distress in the first block,  $F(1, 215) = 27.09, p < .001$ . Acculturative stress and social support accounted for 17.6% of the variance in psychological distress in the second block,  $F(2, 214) = 22.89, p < .001$ . When the interaction between social support and acculturative stress was entered in the third block, results indicated the variance of the model as a whole was 17.8%,  $F(3, 213) = 15.38, p < .001$ . However, the interaction term was not significant,  $R$  squared change = 0.00,  $F$  change (1, 213) = .48,  $p = .488$ , which showed that social support did not moderate the relationship between acculturative stress and psychological distress. In sum, the results indicated that neither social support nor religious coping were moderators.

### **Regression Analyses for Mediation**

To determine whether social support and/or religious coping fit the deterioration or counteractive models in Hypothesis 1 and 2, first regressions were run, then the signs of the unstandardized betas were examined to determine which model, deterioration or counteractive, best fit the dataset. To test for mediation of social support, three regressions were run (see Figure 4). First, acculturative stress was regressed onto psychological distress. Acculturative stress accounted for 12.5% of the variation in psychological distress, and this was significant,  $F(1, 223) = 31.77, p < .001$ ;  $B = 7.04, SE = 1.25$ ; Path c. In the second regression, acculturative stress was regressed onto social

## Mediation Path Model for Social Support

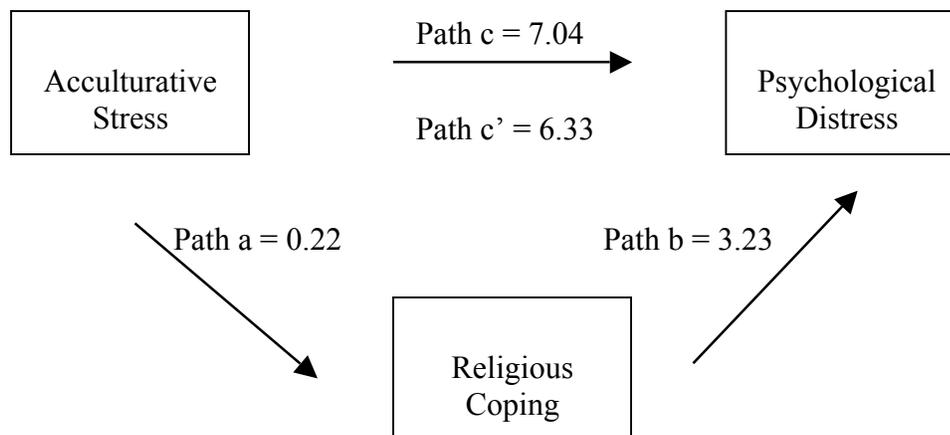


*Figure 4.* Mediation analysis with social support as the mediator. Values of the paths represent the unstandardized betas in the regressions. All paths were significant, and path c was compared to path c' by using Sobel's Z, which provide support for partial mediation. Signs of the betas show that social support does not fit the deterioration or counteractive model; rather, social support exacerbates psychological distress.

support (Path a). Acculturative stress accounted for 4.1% of the total variation in social support, and this was significant,  $F(1, 224) = 9.50, p = .002; B = 2.07, SE = .07$ . The third regression was hierarchical. Acculturative stress was entered in step one, explaining 12.5% of the variance in psychological distress ( $B = 6.11, SE = 1.25$ ; Path c'). Social support was entered into the step two, explaining 17.4% of the total variance explained by the model as a whole,  $F(2, 221) = 23.25, p < .001; B = 4.35, SE = 1.20$ ; Path b. Social support explained an additional 4.9% of the variance in psychological distress after controlling for acculturative stress,  $R^2 \text{ change} = .05, F \text{ change} (1, 221) = 13.09, p < .001$ . To test whether social support carries the influence of acculturative stress to psychological distress, Sobel's  $Z$  was calculated (Preacher, 2010; Sobel's  $Z = 2.35, SE = 0.38, p = .019$ ). Results showed that there is support for partial mediation of social support in this dataset.

To test for mediation of religious coping, three regressions were also run (see Figure 5). First, acculturative stress was also regressed onto psychological distress, and the same results were obtained as above for the first regression for social support,  $F(1, 223) = 31.77, p < .001; B = 7.04, SE = 1.25$ ; Path c. In the second regression, acculturative stress was regressed onto religious coping. Acculturative stress accounted for 3% of the total variation in religious coping, and this was significant,  $F(1, 222) = 6.94, p = .009; B = 0.22, SE = 0.08$ ; Path a. The third regression was hierarchical. Acculturative stress was entered in step one, explaining 12.6% of the variance in psychological distress ( $B = 6.33, SE = 1.25$ ; Path c'). Religious coping was entered into step two, explaining 16.7% of the total variance explained by the model as a whole,  $F(2, 219) = 21.94, p < .001; B = 3.23, SE = 0.98$ ; Path b. Religious coping explained an

## Mediation Path Model for Religious Coping



*Figure 5.* Mediation analysis with religious coping as the mediator. Values of the paths represent the unstandardized betas in the regressions. All paths were significant, and path c was compared to path c' by using Sobel's Z, which provide support for partial mediation. Signs of the betas show that religious coping does not fit the deterioration or counteractive model; rather, religious coping exacerbates psychological distress.

additional 4.1% of the variance in psychological distress after controlling for psychological distress,  $R^2$  change = .04,  $F$  change (1, 219) = 10.85,  $p = .001$ . To test whether religious coping carries the influence of acculturative stress to psychological distress, Sobel's  $Z$  was calculated (Sobel's  $Z = 2.06$ , standard error = 0.34,  $p = .04$ ). Results showed that there is support for partial mediation of religious in this dataset.

Unstandardized betas in both the analysis for social support and religious coping were examined in order to know whether the deterioration or counteractive model best fit the data. Evidence for the deterioration model will be found if the unstandardized betas indicate there is a negative relationship between acculturative stress and religious coping and/or social support (see Figure 1 and Figure 2, path a). Evidence for the counteractive model will be found if the unstandardized betas indicate that there is a positive relationship between acculturative stress and religious coping and/or social support (path a in Figure 1 and Figure 2). In both the deterioration and counteractive model, there is a negative relationship between the mediators and psychological distress, and there is a positive relationship between acculturative stress and psychological distress.

Results showed that both social support and religious coping had similar patterns in their unstandardized betas. Consistent with both the deterioration and counteractive model, there was a positive relationship between acculturative stress and psychological distress (i.e., unstandardized betas in paths c were positive). Consistent with the counteractive model, there was a positive relationship between acculturative stress and both social support and religious coping (i.e., unstandardized betas in paths a were positive); there was not a negative relationship between these two variables, which is contrary to the deterioration model. However, inconsistent with both the deterioration and

counteractive model, there was a positive relationship between both social support and religious coping and psychological distress (i.e., unstandardized betas in paths b were positive), indicating that there was an increase in social support or religious coping, there was also an increase in psychological distress.

### **Discussion**

The purpose of this study was to examine whether social support and religious coping are best conceptualized as moderators or mediators between acculturative stress and psychological distress in a Latino sample in the Midwest. Three specific stress and coping models were tested using social support and religious coping as resources: the buffering, the deterioration, and the counteractive models. There was no support for Hypothesis 1 and Hypothesis 2. Results indicated that both social support and religious coping did not fit the buffering model, which conceptualizes a resource as a moderator. Thus, when Latinos in this sample face acculturative stress, using social support or religious coping does not moderate the psychological distress they may experience. These results were contrary to the hypothesis, and suggest that although the research literature seems to provide evidence for social support as a moderator in Latino samples (Rodriguez, Mira, Myers, Monis, & Cardoza, 2003; Finch & Vega, 2003) and religious coping as a moderator in African American samples (Brown, E., Caldwell, C. H., & Antonucci, T., 2008), when the stressor is acculturative stress and the outcome is psychological distress, these resources may actually influence the relationship between acculturative stress and psychological distress in a different way in a Latino sample. Also, there was a difference in gender with regards to psychological distress, which supports the prediction made in Hypothesis 3 (a) and is consistent with research literature

that Latino women report higher levels of psychological distress (Alegria, Mulvaney-Day, Torres, Polo, Cao, & Canino, 2007; Rivera, Guarnaccia, Mulvaney-Day, Lin, Torres, & Alegria, 2008). The lack of gender differences with regards to social support (Hypothesis 3 (b)), religious coping (Hypothesis 3 (c)), and acculturative stress (Hypothesis 3 (d)), suggests that for this sample, men and women are alike in experiencing acculturative stress and use similar levels of social support and religious coping. Also, there was no support for Hypothesis 3 (e) since gender did not moderate the relationship between acculturative stress and psychological distress. It seems as if for this particular sample, men and women's acculturative stress and the use of coping resources is pretty similar. A replication of this study looking at gender variables may be useful because this sample may not be generalizable to other Latinos living in the U.S.

Analyses were conducted on the data to test whether the aforementioned resources could best be conceptualized as mediators that fit the deterioration or counteractive models. Results indicated that social support and religious coping both mediated the relationship between acculturative stress and psychological distress. However, the pattern of the mediating relationship did not support either the deterioration or the counteractive coping models entirely. The model that was a better fit to the data is the counteractive model, given that there was a positive relationship between acculturative stress (a stressor) and both social support and religious coping (resources). In order to fully fit the counteractive model, a negative relationship between resources (social support and religious coping) and psychological distress was needed. Interestingly, results indicated that both social support and religious coping have a

positive relationship with psychological distress, suggesting that these resources are related to an increase in psychological distress.

Given the results from this study, social support may not be the best resource for Latinos to use when coping with acculturative stress. This result was unexpected given that most research looking at social support show that social support has positive effects on mental and physical health (Finch & Vega, 2003; Crockett, Iturbide, Torres Stone, McGinely, Raffaelli, & Carlo, 2007; Castillo, Conoley, & Brossart, 2004). There are several explanations for the surprising outcome that social support is a mediator and is related to an exacerbation in psychological distress when an individual is faced with acculturative stress. One possibility is the characteristics of the people providing support. Friends or family members providing social support may become models to the person receiving support by guiding and making them aware of effective strategies for coping with stressors (Brondolo, van Halen, Penceille, Beatty, & Contrada, 2009). However, it may be plausible that the providers of social support may not be able to offer adequate guidance; they may lack empathy or the ability to put in themselves in the shoes of the individual suffering from a stress that they have never experienced. For example, people in this sample may vent with friends or relatives still living in their native country, and their social support network may not be able to provide wise advice or fully empathize with the acculturative stress experience of Latinos living in the U.S. for two reasons: 1) they have never experienced living in the U.S. or 2) they are not aware of resources or options available to their relatives who are settled in the U.S. However, results in the study showed that U.S. born Latinos used significantly more social support than foreign born Latinos. It may also be possible that for U.S. born Latinos, part of their social

support network may be unable to identify with their experience because they are not Latino. Seeking social support from non-Latinos is more likely for U.S. born Latinos because the opportunity to learn English exists since they began school, and this language ability provides more chances for them to interact and form friendships with people of different races.

Another explanation for why social support is associated with psychological distress may be that the content of conversations offered by social support networks may not be helpful. An individual looking for social support while experiencing acculturative stress may receive recommendations from different sources that are contradictory, which could ultimately contribute to an exacerbation in psychological distress. It may also be that feedback from a friend or family member may discount aspects of the acculturative stress experience, which may lead to increased distress in individuals seeking support (Badr & Taylor, 2006). Moreover, discussing experiences of acculturative stress may evoke negative emotions in the person experiencing such stress. Such discussions could arouse feelings of frustration, inadequacy, grief, etc., thus affecting the psychological health of the person experiencing acculturative stress (Utsey, Chae, Brown, & Kelly, 2002). In order to tease apart factors that are beneficial or detrimental to psychological health when using social support in the presence of acculturative stress, other aspects of social support should be examined in future studies such as the characteristics of the social support group, the content of discussions, and advice exchanged in the process of receiving social support. It was not a goal in this study to study the various components of social support because the researcher wanted a broader sense of this construct when individuals are faced with acculturative stress. Now that a significant association was

found for social support in general in the context of acculturative stress and psychological distress, the elements that make up this mediator should be studied.

It should be noted that since causality could not be established in this study, there is no confirmation that social support led to more psychological distress. The positive association between social support and psychological distress could also be considered as something that was expected. When individuals experience elevated levels of psychological distress, they may also increase their level of using social support. In other words, psychological distress could very well be influencing the use of social support of individuals in this study. It is not too surprising to find a positive relationship between these variables when we make sense of the relationship between the variables in this manner.

Religious coping had a similar pattern as social support in the results, such that it was a mediator between acculturative stress and high levels of psychological distress and an increase in religious coping was associated with an increase in psychological distress. An explanation for the positive relationship between religious coping and psychological distress is the nature of the religious affiliation of the sample. Because various religious affiliations place emphasis on different beliefs, using religion as a coping mechanism may lead to dissimilar outcomes for individuals in diverse religious affiliations. A study that examined religious coping in Latinas with early-stage breast cancer found that women who identified as Catholic and reported attending church regularly at six months after surgery predicted greater distress at 12 months after surgery. Women who identified as Evangelical and reported obtaining emotional support from church members at six months after surgery predicted less distress at 12 months after surgery (Alferi, Culver,

Carver, Arena, & Antoni, 1999). Research by Park, Cohen, and Herb (1990) has shown that when Catholics and Protestants experience a controllable stressor, religious coping buffers distress for Catholics, but exacerbates distress for Protestants. On the other hand, when a stressor is uncontrollable, religious coping exacerbates distress for Catholics but buffers distress for Protestants. The researchers of this study conjectured that the emphasis of Catholic ideology on guilt and absolvment of guilt better prepares devotees for controllable stressors while the emphasis of faith and acceptance in Protestant religions prepare such devotees for uncontrollable stressors (Park, Cohen, & Herb, 1990). The present study may have found a positive relationship between religious coping and psychological distress because most of the sample may have been Catholics who perceive acculturative stress as uncontrollable. However, there is no evidence to support this speculation since demographic questions in this survey did not ask about religious affiliation. Future studies should look at the religious affiliation of the sample, but the aforementioned studies suggest that the locus of control of individuals in the context of religious coping may be more revealing of how religious beliefs help individuals cope with stressors. For example, believing that God alone will alleviate the impact of a stressor may demonstrate an external locus of control, whereas attending religious services or saying a certain amount of prayers to deal with a stressor may express an internal locus of control. Examining these two loci may explain why there are differences in outcomes of psychological health when religious coping is used.

The reason why studies on religious coping in general have not drawn consistent conclusions may be due to the nature of how this construct is operationalized. Religion is a multifaceted concept that incorporates cognitive, emotional, motivational, and

behavioral aspects. Perhaps certain aspects of religious coping is more likely to be associated with lower levels of distress while other aspects are associated with higher levels of distress. In the present study, religious coping was measured by looking at two questions from the BCOPE (“I’ve been trying to find comfort in my religious beliefs” and “I’ve been praying or meditating”) and may not take into account other facets of religious coping, such as seeking support from a religious figure, for example, a pastor or priest, or seeking support from a religious community. Since the results of the present study indicate that Latinos do use religious coping when faced with acculturative stress and is associated with higher psychological distress, it also would have been beneficial to look at other pieces of religious coping, such as those used by Alferi et al. (1999; “I’ve been getting emotional support from the people in my church,” “I’ve been going to church or prayer meetings,” “I’ve been talking with my priest or minister.”) to understand the association of those elements of religious coping with psychological distress in the context of acculturative stress.

Another way of conceptualizing religious coping may be to differentiate the difference between religiosity and spirituality, as Wong, Rew, and Silas (2006) did in their study with adolescents. They explained that religiosity is related to a faith tradition and spirituality is associated with self-transcendence in a religious context. These researchers found that high levels on both of these constructs were related to better mental health. However, given that religious coping was associated with psychological distress in this sample, it may be advantageous to also try to incorporate a distinction between religiosity and spirituality in the future to know whether if any of these approaches may lower psychological distress.

Religious coping has been considered by some researchers to be a passive style of coping and less effective than an active style of coping (Carver, Scheier, & Weintraub, 1989). The unexpected results on religious coping and psychological distress the present study may be explained by the conjecture that religious coping is passive, and thus ineffective, at reducing psychological distress. Perhaps the items that assessed for religious coping in the questionnaire used in the present study are styles that are considered to be passive or deferential responses when faced with a stressor such as acculturative stress. Research has shown that passive or deferential styles of religious coping are associated with negative mental health outcomes compared to active styles of religious coping (Pargament, Koenig, & Perez, 2000). Thus, providing participants with other religious items that are not passive or deferential may be useful in future studies to see whether such items are associated with positive mental health outcomes. It should also be noted, however, that other researchers have shown that in factor analyses, religious coping loads on active coping and positive reappraisal factors rather than avoidant coping factors (Pargament & Park, 1995). Abraido-Lanza, Vasquez, and Echeverria conducted a study to Abraido-Lanza and colleagues concluded that religious coping was correlated with active but not passive coping. Clearly, more research on the active versus passive nature of religious coping is necessary, and a future study should look at whether the religious subscale of the BCOPE is considered active or passive, because it may help explain results in the present study.

### **Limitations**

Since this study was not designed in a longitudinal fashion, causality relationships cannot be established between acculturative stress and both religious coping and social

support in the meditational models because the presence of such variables were not tested at different time periods. In order to test whether a resource or stressor is an intervening variable, it would be necessary to ask participants about engaging in religious coping or if they experienced acculturative stress at time one, then ask those same questions from participants in time two, then ask how much distress they are experiencing in time three. For future studies looking at religious coping and acculturative stress in Latino samples, it would be beneficial to conduct studies longitudinally and to ask participants their religious affiliation, since it seems likely that contradictory results in the research literature on religious coping may be due to different religious affiliations of samples (Park, Cohen, & Herb, 1990).

Another limitation may be that the social support variable used in this study does not differentiate between social support from family and social support from friendships because it may be likely that support from either one of those groups may be more beneficial. These statements do not tap at other detailed information about the social network, such as whether people offering social support have experienced acculturative stress. More detailed questions about social support are needed in order to provide insight as to why social support is associated with an increase in psychological distress in this Latino sample. Clearly, there is a need for more studies to explain, replicate, and extend this psychological distress-exacerbating finding among Latinos. Since the sample was mostly lower SES and foreign born, generalizations cannot be made about Latinos who are higher SES or who are U.S. born.

### **Implications**

The results of this study contribute to the current knowledge of religious coping and social support in Latinos and whether these variables could be conceptualized in a coping framework as moderators or mediators. There are aspects of religious coping and social support that may not be beneficial for this group of Latinos when faced with acculturative stress. The results imply that the type of social support and religious coping reported in the present study were not a good match for individuals experiencing acculturative stress. It may also be beneficial for communities to find other ways of reducing acculturative stress by teaching Latinos about American culture and the English language if they are not fluent, especially for Latinos who are foreign born. However, Latinos should not be pressured to abandon characteristics of their native culture because research has shown that integrating norms of both a native and new culture is associated with an increase in general well-being (Phinney, 1990). Before providers of mental health services dissuade Latinos from social support and religious coping, more research needs to be done in this area with a more diverse group of Latinos who are not all receiving the same service at the place of recruitment in the same geographic location in the U.S.

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