Discrimination and Psychological Distress Among Latinos: The Role of Family Conflict, Family Cohesion and Religion

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LOYOLA UNIVERSITY CHICAGO

DISCRIMINATION AND PSYCHOLOGICAL DISTRESS AMONG LATINOS:
THE ROLE OF FAMILY CONFLICT,
FAMILY COHESION AND RELIGION

A DISSERTATION SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

PROGRAM IN SOCIOLOGY

BY
LYDIA S. BILLATOS
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First and foremost I would like to thank God for His great work in my life. He has been my comforter during even the hardest times and my source of strength throughout this whole process. Always for Your Glory God.

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To my dearest husband Fr. Michael
and our beautiful, happy and energetic children Grace and Christian
What counts in life is not the mere fact that we have lived. It is what difference we have made to the lives of others that will determine the significance of the life we lead.

—Nelson Mandela
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<table>
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<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ISR</td>
<td>University of Michigan’s Institute for Social research</td>
</tr>
<tr>
<td>HD</td>
<td>NLAAS High Density sampling design</td>
</tr>
<tr>
<td>NLAAS</td>
<td>National Latina/o and Asian American Study</td>
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<tr>
<td>CPES</td>
<td>Collaborative Psychiatric Epidemiology Surveys</td>
</tr>
<tr>
<td>NIMH</td>
<td>National Institute of Mental Health</td>
</tr>
<tr>
<td>PSU</td>
<td>Primary Sampling Unit</td>
</tr>
<tr>
<td>MSA</td>
<td>Metropolitan Statistical Area</td>
</tr>
<tr>
<td>SRC</td>
<td>University of Michigan Survey Research Center</td>
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<tr>
<td>MDD</td>
<td>Major Depressive Disorder</td>
</tr>
<tr>
<td>MDE</td>
<td>Major Depressive Episode</td>
</tr>
<tr>
<td>SES</td>
<td>Socioeconomic Status</td>
</tr>
<tr>
<td>SPSES</td>
<td>Self Perceived Socioeconomic Status</td>
</tr>
<tr>
<td>SMI</td>
<td>Serious Mental Illness</td>
</tr>
<tr>
<td>AMI</td>
<td>Any Mental Illness</td>
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<tr>
<td>LBW</td>
<td>Low Birth Weight</td>
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<tr>
<td>NHIS</td>
<td>National Health Interview Survey</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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<td>WMH</td>
<td>World Mental Health</td>
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<tr>
<td>NCS-R</td>
<td>National Comorbidity Survey Replication</td>
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<tr>
<td>Acronym</td>
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<tr>
<td>CPES</td>
<td>Collaborative Psychiatric Epidemiology Surveys</td>
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<tr>
<td>NSAL</td>
<td>The National Survey of American Life</td>
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<tr>
<td>K10</td>
<td>The Kessler Psychological Distress Scale</td>
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<tr>
<td>SAMHSA</td>
<td>Substance Abuse and Mental Health Services Administration</td>
</tr>
<tr>
<td>OCM</td>
<td>Olson’s Circumplex Model</td>
</tr>
<tr>
<td>CMD</td>
<td>Common Mental Disorders</td>
</tr>
<tr>
<td>LAI</td>
<td>Late-Arrival Immigrants</td>
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<tr>
<td>IUSC</td>
<td>In-US-as-Child</td>
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<tr>
<td>LAHP</td>
<td>Latino Acculturation Health Project</td>
</tr>
<tr>
<td>ME</td>
<td>Marginal Effect</td>
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<tr>
<td>MEMs</td>
<td>Marginal Effects at the Means</td>
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<tr>
<td>AME</td>
<td>Average Marginal Effects</td>
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<td>MERs</td>
<td>Marginal Effects at Representative Values</td>
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ABSTRACT

This study examined the role of family conflict, family cohesion and religion on the relationship between discrimination and psychological distress among Latino/as in the United States with a focus on gender differences. The study had two main objectives: (1) To test alternate stress-buffering models to understand the mechanisms through which family cohesion, family conflict, and religion affect the relationship of discrimination and psychological distress, allowing for interaction effects with ethnicity and gender; (2) To test hypotheses about the possible non-linear effects of family cohesion on psychological distress, derived from the ([1989] 2000) Olson Circumplex Model (OCM), which was originally based on clinical samples of mostly non-Latino adults.

Data (N=2,554) were drawn from the National Latino and Asian American Study (NLAAS). The analytic sample consists of 577 Cuban; 495 Puerto Rican; 868 Mexican; and 614 Other Latino adults aged 18 to 97. This study controlled for gender, ethnicity, age, work status, education, income, marital status, self-perceived socioeconomic status and ability to speak English. Multiple regression and Wald tests confirmed that higher levels of perceived discrimination are associated with higher levels of psychological distress. In regard to the first study objective, the analysis showed that women and Puerto Ricans are more likely to report higher levels of distress than men and Mexicans, but there were no significant interactions of discrimination with ethnicity and gender. Moreover, increased levels of family conflict increased the level of psychological distress; however, family
conflict did not have any moderating effect on the relationship between discrimination and psychological distress. Church attendance more than once a week significantly decreased psychological distress among Latino/as. In regard to the second objective, the analysis showed that family cohesion does have a non-linear effect on psychological distress among Latinos/as. At low levels of family cohesion, more cohesion increased distress, but at moderate and high levels of cohesion, increased cohesion decreased distress. These results indicate that discrimination, family conflict, family cohesion and church attendance are important factors affecting psychological distress among Latinos.
CHAPTER ONE
INTRODUCTION

Good mental health is one of the ten leading indicators of national wellbeing identified in Healthy People 2010 (U.S. Department of Health and Human Services, 2000). However, the World Health Organization (WHO) estimates that more than three hundred and fifty million people around the globe suffer from depression. Depression is the leading cause of disability worldwide, and is a major contributor to the global burden of disease. (Martinez-Perez, de la Torre Diez and Lopez-Coronado 2013).

Depression and anxiety symptoms are both under the umbrella of psychological distress. My understanding and discussion of psychological distress is informed by Mirowsky and Ross ([1989] 2012) who say, “by psychological distress we mean the unpleasant subjective states of depression and anxiety, which have both emotional and physiological manifestations.” (p.8)

Within America, many people suffer from depression and anxiety. Of U.S. adults in 2012, 6.9 % have reported a major depressive episode in the last twelve months. Moreover, “anxiety disorders are among the most common mental disorders experienced by Americans” (http://www.nimh.nih.gov/Statistics/1ANYANX_ADULT.shtml). Of U.S. adults, 28.8% report anxiety at least once during their lifetime, while 18.1 % experienced anxiety within the last twelve months (Kessler, Chiu, Demler and Walters 2005; Kessler, Berglund, Demler, Jin, Walters 2005; Wang et al. 2005). It is not
acceptable that so many people suffer from psychological distress. As such, this study joins other efforts trying to eradicate this problem.

The following step however, was to decide in what population I should conduct my analysis on psychological distress? What would have the most impact in America today? What would give this study the most weight by virtue of number of people it affects and helps? A study of the demographic trends makes clear that the Latino community in America is the largest, youngest and fastest growing minority groups in the US (Pew Hispanic Center 2009). One in four newborns is Hispanic (Pew Hispanic Center 2009). According to the 2008 census, the Latino growth rate was higher than the US population as a whole (U.S. Census 2008). By the 2010 census, they accounted for 16.3% of the total U.S. population (50.5 million) and a whopping 56 percent of the nation’s growth in the past decade (Passel, D’Vera and Lopez 2011). By force of numbers alone, the kinds of adults these children become will shape the kind of society America becomes in the twenty first century (Pew Hispanic Center, 2009).

Studies have thus far suggested that approximately fifteen percent of Latinos have a lifetime history of Major Depressive Disorder (MDD) with Latinas reporting more depression than Latinos (Alegria et al. 2008). Likewise fifteen percent of Latinos experienced anxiety disorders (i.e. agoraphobia without panic disorder, generalized anxiety disorder panic disorder, posttraumatic stress disorder and social phobia). (Alegria et al. 2008). Altogether, the lifetime prevalence rates of mood anxiety among Latino men and women were approximately 28 percent and 30 percent respectively. This is not a negligible number of people.
Therefore, at this pivotal point in the timeline of our American history, where Latinos are growing at an unprecedented rate and depression has been declared a “global crisis,” it is of critical importance to address the prevalence and correlates of psychological distress among Latinos for the sake of both “humanistic empathy” and for the social and emotional topography of the future American landscape. Rather than using a psychological approach of diagnosing mental illness, I will be employing a sociological approach concerned with the effects of discrimination, family cohesion, family conflict and religion on psychological distress (Mirowsky and Ross [1989] 2012).

**Objectives of the Study**

Recognizing Latino heterogeneity is the next phase in research on Latinos. The acceptability of pan-ethnic understandings of this community are proving to be subpar and the gradations of their emerging social patterns are increasingly being highlighted as the acceptable form of study. This of course is a reflection of the real world. The Pew Hispanic Center’s latest public opinion survey, appropriately titled *When Labels Don’t Fit: Hispanics and Their Views of Identity*, found that 51 percent of those surveyed preferred to cite their family’s country of origin over pan-ethnic terms such as Latino or Hispanic1. Therefore, these personal preferences, coupled with the unique and differing social histories and locations of diverse Latino ethnicities has made clear to me the importance of disaggregating Latinos by ethnic categories. In addition, disaggregating Latinos by gender is likewise of utmost importance, as Latino men and women may

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1 Though I would like to refrain from using the pan ethnic term “Hispanic” or “Latino,” it has been useful to identify the more than 50 million people in the United States who identify in some way with a Latin American background or culture. Nonetheless I address the concerns of the Latinos who prefer to cite their family origin by disaggregating the NLAAS population by ethnicity.
diverge in their experience of and response to discrimination, family and religion. In fact, Latinos are now the number one ethnic group that Americans feel is most subjected to discrimination in society today (Pew Social and Demographic Trends). Many studies make a strong case for the causal relationship between discrimination and mental health. However, little is known about the relationship between discrimination and psychological distress as it is informed by ethnicity and gender, and even less is known about these interrelationships as they are moderated by family cohesion, conflict and religion. Therefore my *foremost objective* in this study is to understand the relationship of discrimination to psychological distress for both male and female and among each ethnic category and to understand the role that family cohesion, family conflict and religion bears on this relationship.

Small incessant tensions and pressures, although minor in magnitude, eventually have an effect of Latinos mental health. As such, my *second objective* was to test alternate stress-buffering models to understand the mechanisms through which family cohesion, family conflict, and religion affect the relationship of discrimination and psychological distress, allowing for interaction effects with ethnicity and gender.

Third, the Latino family has a strong bearing on Latino’s lived experience, but very little has been done to empirically understand the Latino family. How does the family shape the individual experience with mental health and discrimination and the interaction between the two? My *third objective* is to test hypotheses about the possible non-linear effects of family cohesion on psychological distress, derived from the ([1989]...
Olson Circumplex Model (OCM), which was originally based on clinical samples of mostly non-Latino adults.

Finally, religion -- as an institution, as a set of moral guidelines, or as an experience with the divine -- has played an important role in the Latino narrative. Religion informs the way Latinos cope with daily life and other stressors such as discrimination (Miller in Musgrave et al. 2002). As such, my fourth objective is to understand the religious dynamics among the different Latino ethnic groups and highlight the impact that religion has on psychological distress for each.

Therefore to understand the role of discrimination, changing family environment and religion in a multicultural society promotes a more holistic understanding of psychological distress, not as an isolated medical condition but rather as contingent on many facets of social and family history.

In addition to contributing to the body of literature on the subject of Latino mental health, I hope that this dissertation project will benefit all Latinos by understanding the roles that family cohesion, family conflict and religion play in psychological distress. The WHO has reported depression to be a “global crisis.” The lived experience of misery, worry and sadness of people with poor mental health identifies the social fact of its prevalence, as a social problem (Mirowsky and Ross [1989] 2012). These emotional consequences of structural and social realities makes mental health an important subject in the field of sociology, as Mirowsky and Ross assert “sociology springs from humanistic empathy and concern as much as from scholarly and scientific curiosity” (Mirowsky and Ross [1989] 2012).
The sheer prevalence of psychological distress and its social consequences is reason enough for the pursuit of understanding it. I seek to understand psychological distress, with the hope of ultimately helping to thwart psychological distress. This can only be done with deeper studies to shed light on the situation. Just as when light is let in to a dark place, the roaches scatter, so also when further knowledge, awareness, acceptance and treatment about mental health is uncovered, the prevalence and associated stigma, shame, and disgrace that accompanies it will also scatter. Certainly, when we are free of depression, anxiety, worry and all other problems that contribute to psychological distress then we can live our lives to its maximum potential.
CHAPTER TWO
LITERATURE REVIEW

What is psychological distress? Psychological distress has been operationalized as containing both symptoms of depression and anxiety. Depression is measured with feelings of being “sad, demoralized, lonely, hopeless or worthless” and anxiety is measured with feelings of being “tense, restless, worried, irritable and afraid” (Mirowsky and Ross [1989] 2012:23). Although both of these forms of psychological distress have different patterns and manifestations, they “often tell the same story about who is distressed and why?”(Mirowsky and Ross [1989] 2012:26). One way of understanding psychological distress is in its relation to psychological well-being. Well-being and distress are on opposite poles of the spectrum. Well being is a general sense of happiness, hopefulness about the future and just enjoying life. It is characterized by general positive feelings (Mirowsky and Ross [1989] 2012). The lack of these positive feelings is associated with depression, anxiety and hence with psychological distress.

As such, psychological distress is not a mental illness (except in extreme cases). Most mental illnesses are associated with cognitive problems which affect the thought process, seeing or hearing things that others do not, paranoia, hallucinations, or having delusions among other symptoms. Psychological distress is not as such an extreme or mysterious ailment, rather it is often caused by daily stressor. (Mirowsky and Ross [1989] 2012).
So on what basis then should we study psychological distress from a sociological perspective? It is not a mental illness. It is not a “mysterious” ailment than needs to be uncovered. Mirowsky and Ross justify the sociological pursuit of understanding psychological distress by asserting that it is in fact a “human universal”([1989] 2012:30). By understanding psychological distress, researchers are able to quantify the general life satisfaction and happiness irrespective of culture, political preference, religious affiliation etc. They assert that from a sociological standpoint studying distress “tells us a great deal about the nature and quality of life in different social positions” (Mirowsky and Ross [1989] 2012:30). With this understanding I chose to focus this study on non-specific generalized psychological distress assessed with the K10 among Latinos in the United States.

**Mental Health: Psychological Distress**

The importance of mental health is undeniable. Poor mental health effects a great number of people, but how many and to what degree? Public Law 102-321 sought to answer the question, “How can we estimate prevalence of “serious mental illness” (SMI) in the population? The Alcohol, Drug Abuse and Mental Health Administration Reorganization Act established a grant for adults with SMI and required the Substance Abuse and Mental Health Services Administration (SAMHSA) to develop a method to estimate the prevalence of SMI. As such, three screening scales were developed, one of which was the Kessler 10 (K10) nonspecific distress scales. The K10 was the most efficient and accurate scale to determine SMI in the adult population and was user
friendly. It helped to bridge the gap between community and clinical epidemiology (Kessler et al. 2003). This is the scale which I have employed in my analyses. With the help of this tool, we have been able to attain some important estimates of mental illness in the population. For example, in 2012, there were an estimated 43.7 million adults aged 18 or older in the U.S. with Any Mental Illness (AMI) in the past year. AMI encompasses a mental, behavioral or emotional disorder (excluding developmental and substance use disorders). This represented 18.6 percent of all U.S. adults (National Institute of Mental Health-NIMH). Among the mental illnesses that can be identified through the Kessler 10 scale are anxiety and mood disorders. Mood disorder, such as major depressive disorder, dysthymic disorder and/or bipolar disorder, chronically disturbs a person’s emotional state. Approximately 20.8% of U.S. adults experience a mood disorder over their lifetime. (NIMH, http://www.nimh.nih.gov/Statistics/1ANYMOODDIS_ADULT.shtml.) They are a substantial minority in the population. However, anxiety is the most common mood disorder experienced by Americans. It is a natural response to stress, and only becomes a disorder when the individual experiences difficulty controlling it, in conditions such as post-traumatic stress disorder, obsessive compulsive disorder, and specific phobias. Symptoms of both anxiety and depression disorders will be used as a proxy for psychological distress in this study with the use of the K10.

*Ethnic and Gender Differences in the Prevalence of Mental Health Outcomes*

Some research asserts that there is no ethnic difference in prevalence of depressive disorder estimates (Blazer et al. 1994; Zhang and Snowden 1999; Turner and
Gil 2002; Hernandez et al. 2005), and that the small differences that may be present are not clinically significant. However, Alegria and her colleagues found that whites experience more depressive symptomatology and depressive disorder than Latinos (2008; Breslau et al. 2005; Hasin et al. 2005; Riolo et al. 2005). In particular Alegria and her colleagues (2008) studied prevalence rates of mood, anxiety and substance abuse disorders of immigrant and non-immigrant US Latino groups (using the NLAAS) as compared to non-Latino whites (using the National Comorbidity Survey Replication [NCS-R]). They found that the lifetime prevalence of psychiatric disorders for NCS-R non-Latino white subjects was 43.2 percent compared to 29.7 percent for the NLAAS Latino subjects and overall, Latinos showed a 15 percent prevalence rate for both anxiety disorders and lifetime history of MDD. There was also variation among Latino ethnicities which leads to the importance of disaggregating by Latino ethnicity which I will discuss in detail below.

Gender is another social construct that has been associated with mood disorders. Studies show that women have a higher likelihood than men to experience depression among both the Latino and the non-Latino white populations (Hasin et al. 2005; Mendelson et al. 2008). For example, in their investigation of prevalence rates of mood, anxiety and substance abuse disorders among Latinos, Alegria et al (2007) found that lifetime psychiatric disorder prevalence estimates were approximately 28 percent for men and 30 percent for women. Lorenzo-Blanco and Delva (2012) also found that Latinas experienced higher rates of lifetime episodes of sadness than their male counterparts, and the pattern was again confirmed among Central American females who evidenced higher
levels of depressive symptoms than Central American males. (Salgado de Snyder, Cervantes and Padilla 1990).
Table 1. Indicators of Depression by Gender for African Americans, Whites and Latinos

| Hispanic or Latino origin, Race and Sex | Sadness |   |   |   |   |   |   |   | Hopelessness |   |   |   |   |   |   |   | Worthlessness |   |   |   |   |   |   |   |   | Everything is an Effort |   |   |   |   |   |   |   |   |
| Hispanic or Latino, male               | 16,871  | 439 | 2.6 | 1,172 | 6.9 | 343 | 2.0 | 775 | 4.59 | 256 | 1.52 | 520 | 3.08 | 810 | 4.80 | 1,278 | 7.56 |
| Hispanic or Latino, female             | 15,890  | 788 | 5.0 | 1,819 | 11.4 | 537 | 3.4 | 1,045 | 6.58 | 383 | 2.41 | 661 | 4.16 | 1,011 | 6.36 | 1,359 | 8.55 |
| Not Hispanic or Latino                 |         |     |     |       |     |     |     |     |       |     |     |     |     |     |     |     |               |     |     |     |     |     |     |     |     |               |     |     |     |     |     |     |     |     |
| White, single race, male               | 75,875  | 2,108 | 2.8 | 5,048 | 6.7 | 1,490 | 2.0 | 2,742 | 3.61 | 1,305 | 1.72 | 2,321 | 3.06 | 3,653 | 4.81 | 6,277 | 8.27 |
| White, single race, female             | 80,608  | 2,680 | 3.3 | 7,284 | 9.0 | 1,730 | 2.1 | 3,919 | 4.86 | 1,633 | 2.03 | 2,949 | 3.66 | 4,590 | 5.69 | 7,650 | 9.49 |
| Black or African American, male        | 12,073  | 409 | 3.4 | 1,402 | 11.6 | 292 | 2.4 | 630 | 5.22 | 207 | 2.21 | 551 | 4.56 | 1,123 | 9.30 | 1,281 | 10.67 |
| Black or African American, female      | 14,479  | 688 | 4.8 | 1,751 | 12.1 | 418 | 2.9 | 728 | 5.03 | 254 | 1.75 | 594 | 4.10 | 1,196 | 8.26 | 1,859 | 12.84 |

Table 1 presents data from the U.S. Centers for Disease Control and Prevention on indicators of depression and generalized psychological distress (2006) (i.e. sadness, hopelessness, worthlessness and effort) for African Americans, Whites and Latinos by sex. It is important to note that while the immigrant experience is important to Latinos, most Latinos living in the U.S. are native born, not recent immigrants. Only about 35.5% of the Latino population is first generation1 (PEW: Krogstad and Lopez 2014).

According to the data, Latinas seemingly have worse mental health on every indicator of depression and distress and at both levels (almost all of the time and some of the time) compared to their male counterparts. Even outside of the Hispanic community, these statistics show that Latinas fare worse than people from other ethnicities. They report the highest proportions compared to any other ethnicity of experiencing sadness almost all or most of the time (5%), Hopelessness almost all or most of the time (3.4%) and some of the time (6.6%) and worthlessness almost or most of the time (2.4%). Certainly, these statistics do speak to the manifold burdens bore by Latina women (Molina 2012).

Indeed, they are consistent with some of the literature which suggests that Latinos report more depressive symptoms (Mendelson et al. 2008), and have higher prevalence of depressive disorder (Dunlop et al. 2003) than their white counterparts.

**Latino Immigrant Health Paradox**

The “Latino immigrant health paradox,” has been at the center of much debate in recent years. A health paradox “typically refers to a pattern of morbidity and/or mortality

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1 In fact, “U.S. births have been the primary driving force behind the increase in the Hispanic population since 2000 and that trend continued between 2012 and 2013. The Census Bureau estimates that natural increase (births minus deaths) accounted for 78% of the total change in the U.S. Hispanic population from 2012 to 2013.” (Brown 2014: Pew Hispanic research).
for a particular group that is at odds with what would be expected given its socioeconomic profile” (Acevedo- Garcia and Bates 2008: p.103). In the context of Latino immigrants, notwithstanding low educational attainment and high levels of poverty, Latino immigrants evidence better health and lower mortality rates than the average population (Acevedo- Garcia and Bates 2008).

Some recent research points to a more nuanced explanation arguing that some, but not all Latino immigrants experience a health advantage (Alegria et al. 2007, 2008; Zsembik and Fennell 2005). For example, in Prevalence of Mental Illness in Immigrant and Non-Immigrant U.S. Latino Groups (2008), Alegria and her colleagues find that “the immigrant paradox” consistently held for Mexican respondents across mood, anxiety, and substance disorders, however, for Cubans and other Latinos it was only evident for substance disorders. Also, there was no difference found between immigrant and U.S.-born Puerto Rican respondents. This highlights the notion that Latinos are a diverse cultural group and piling them all into one category is conceptually, and practically inappropriate. To this end, Alegria and her colleagues (2007, 2008) suggest that Latino groups should be disaggregated to impart accurate findings about the trends in the mental health of each Latino ethnicity. In the sections that follow, I discuss mental health literature that not only compares Latinos with non-Latino whites, but also compares Latinos against each other to illustrate the importance of within-group analysis of psychological distress among Latinos. I aim to review potential explanations for the inconsistencies that surface.
Potential Explanations for Ethnic Differences

There are a number of explanations to consider to understand the variability in mental health outcomes among Latino ethnicities. First, each Latino group differs in the conditions within each country leading to migration. The political landscape in the home country must be considered to understand why an individual would migrate to the US. For example, the US government has treated Cubans as the classic political refugee group (Pedraza-Bailey 1985; Portes and Bach 1985 in Guarnaccia 2002), many of whom have left Cuba due to fear of political persecution. As such the first Cuban immigrants were members of the overthrown *Batista* regime and came to the US with a considerable amount of wealth and education. Mexicans, on the other hand may have come to the US in the hopes of a better life, given the poor state of the Mexican economy. (Guarnaccia et al. 2002) Many Mexicans leave economically depressed rural areas to come to the US where the earnings differential makes frequent and prolonged trips more attractive (Guarnaccia et al. 2002). This social location undoubtedly affects their history in the US and informs their current experiences and future expectations as well.

Moreover, each country has its own particular societal norms that shape the intersections of age, gender and class relationships. For example, what is acceptable for women in El Salvador may not be appropriate for women in Mexico. For example, El Salvadorans are accustomed to a flexible family life due to migration cycles (Landolt 2001), as such it is possible that working women is more acceptable, whereas the gender roles in Mexico may be more stringent.
How the US received migrants at various times, depending on the relationship with the home country is another important influence to consider in the heterogeneity of Latinos experiences (Bean and Tienda, 1987; Melville, 1994; Molina and Aguirre-Molina, 1994; Molina, Aguirre-Molina and Zambrana, 2001; Portes and Bach, 1985; Grenier and Stepick, 1992; Guarnaccia et al. 2002). Some Latino ethnicities, such as Cubans, received considerable aid upon arrival, to start businesses and secure loans (Guarnaccia et al 2002) due to their refugee status, while others, such as the Dominican refugees, who were not officially recognized as refugees did not receive the same amount of aid (Guarnaccia et al. 2002).

Also, some Latino ethnicities (Cubans) are able to transfer their professional credentials as doctors and lawyers while Latinos from other countries (Mexico) were not (Pedraza-Bailey 1985; Grenier and Stepick 1992). Therefore, by grouping all Latinos into one homogenous group, many important nuanced findings would remain shrouded.

Cubans have shown lower rates of distress and disorder than any other Latino ethnicities (Guarnaccia et al. 2002). This could be due to their exclusive social location in America. Cubans have the highest levels of socioeconomic status of all Latino ethnicities (Guarnaccia et al., 2002). Moreover, they arguably have the best infrastructure for transition into the United States of all Latino ethnicities (Rumbaut, 1994; Perez et al. 2008). This supportive infrastructure coupled with the fact that they have the highest rate of retention of Spanish as their primary language means that Cubans maintain a strong ethnic identity and have used this to develop a vibrant ethnic enclave which has much sway on the political and cultural life of the city of Miami (where much of the
populations resides) (Portes and Stepick, 1993; Guarnaccia et al. 2002). In addition, living in an ethnic enclave could provide protection against the perception of discrimination as it is shown that Cubans are less likely to report experiences of discrimination than any of the other three Latino ethnicities (Perez et al. 2008). Cuban men were less likely than Puerto Ricans to have a history of anxiety disorders or substance use disorders (Guarnaccia et al. 2002). This could also be due, in part, to the US government aid provided for Cuban resettlements (Grenier and Stepick, 1992).

Mexicans have a much different social location and social condition (Xu 2011) than other Latino ethnicities. Mexican migrants largely come from the economically disadvantaged rural areas mainly because various Mexican government policies implemented since World War II have favored the urban working class making them comfortable enough to stay in Mexico (Guarnaccia et al. 2002). As such, the resulting poverty of rural areas led to a desire to migrate for anyone who was able to finance a trip to the US. Upon arrival in the US, Mexicans have found large co-ethnic communities to provide them with social support, jobs, church services and bilingual/bicultural mental health services (Guarnaccia et al 2002). However, the concentration of Mexicans in enclaves may not be as promising as it has for the Cuban community. Moreover, even within the Mexican ethnicity, wide variations exist, due to factors such as; marital status, occupational status, education, length of stay in the U.S., proximity to the Mexican border, reasons for migration and so on.

An important caveat to consider is that in many studies, the Mexican origin population has been treated as representatives of all Latinos. This is no doubt reflective of
the demographic presence of Mexicans in America. People of Mexican origin are the largest group of Latinos in the U.S. population (Guarnaccia et al. 2002). Therefore, even when country of origin of the population is unspecified in studies, many have been conducted in areas with high Mexican and Mexican-American concentration (Mendelson et al. 2008), like in Los Angeles or Texas, so it is likely that the findings which claim generalizability to all Latinos, actually only speak to the experience of Mexicans and Mexican Americans. This of course leads to skewed understandings of the Latino population due to the Mexican unique lived experiences briefly mentioned above (Perez et al. 2008; Rivera et al. 2008; Sarmiento and Cardemil 2009; Lorenzo-Blanco and Cortina 2012).

Puerto Ricans also have their own distinct experience, history and resulting mental health outcomes. In fact, Alegria et al. (2007) found that Puerto Ricans had the highest overall prevalence rate of psychiatric disorders among all the Latino ethnic groups assessed. Guarnaccia and his colleagues similarly found that Puerto Ricans experienced the worst mental health status compared to other Latino ethnicities (2002). Additionally, Moscicki and colleagues (1987) found that Puerto Ricans had elevated levels of depressive symptoms compared to Mexicans. Also, Puerto Rican women had higher chance of having a history of substance use disorders than other Latinas (Alegria et al 2007). Other studies found that Puerto Ricans were more likely to have had higher MDD and smoking prevalence compared to other Latino ethnicities (Alegria et al. 2008; Perez-Stable et al. 2001; Lorenzo-Blanco and Cortina 2012). Finally, Puerto Ricans were found to have higher rates of psychological distress and anxiety disorders than Cubans,
Mexicans and other Latinos (Rivera et al. 2008, Alegria et al. 2008), so that the prevalence rates of psychiatric disorders found among the Puerto Rican population is actually more comparable to those of non-Latino whites (Alegria et al. 2008; Breslau et al. 2006; Robins and Regler 1991; Vega et al. 1998). It is important to note here that there has been very little done on other Latino ethnicities—a gap of research that future scholars should address.

Other Latinos, such as El Salvadorans and Dominicans arrived on American soil for various reasons, but not as much is known about them, as no major mental health study has included Dominicans or some of the other rapidly growing Latino groups such as El Salvadorans, Colombians and Ecuadorians (Guarnaccia et al. 2002). The NLAAS has filled this gap, although the focus of the NLAAS is also on the three largest Latino groups.

El Salvador has a century old tradition of cyclical labor migration (Landolt 2001). Since the 1800’s large numbers of rural workers would migrate seasonally to Honduras, and Guatemala for wage-labor. As such, “the rural household was transformed into a malleable economic unit able to adjust to migration cycles” (Landolt 2001:222). In the 1940’s Salvadorans began migrating to the US as Pacific Coast ship yards recruited Salvadorans to compensate for the wartime labor shortages (Cordoba 1995). Meanwhile, on the homefront of El Salvador there was war and political violence. The republic of El Salvador first won independence from Spain in 1821, and declared independence from the Central American federation eighteen years later. The following decades were filled with battles with other Central American nations. Between 1931 and 1979 military
dictators ruled el Salvador and eventually civil war broke out in the 1980’s (Purdy in Odekon 2006) which caused an eruption in migration to the US. (Landolt 2001). The reception of Salvadorans in the US and the government response to them was uneven. The federal government was hostile to Salvadoran refugees because the Reagn administration supported a military solution to the conflict in El Salvador, therefore recognizing Salvadorans as legitimate refugees would imply that the Salvadoran state was unwilling to protect their citizens human rights. (Landolt 2001). As such Salvadorans had to look to progressive grassroots organizations, labor market opportunities and their own group resources. (Landolt 2001). Many El Salvadorans have now mainly settled in Los Angeles, San Francisco, Washington D.C. and New York City. An estimated 1.8 million Hispanics of Salvadoran origin resided in the US in 2010, making them the fourth largest population of Latinos living in the US. (Motel and Patten 2012a: PEW).

The Dominican experience of migration to the US was comparable to Cubans and Salvadorians. Migration began after the assassination of the dictator Trujillo in 1961 and the U.S. Occupation in 1965 (Guarnaccia et al. 2002). The first wave of immigrants from the Dominican to the U.S. were mainly middle-to-upper class individuals who were fleeing political persecution from rightwing government, or middle class people whom the U.S. government aided to emigrate for political security and so that the imposition of a U.S. government would be welcomed. (Grasmuck and Pessar 1991). However when they arrived to the U.S. the government did not offer the same amount of aid as it did to the Cuban political refugees (Guarnaccia et al. 2002) as they were not officially recognized. Nonetheless, they had legal resident status who could bring relatives in as
well. The second waves of immigration reached down to the poorer sectors who were leaving the Dominican Republic because of high unemployment, extreme poverty, and an effort to reunite with their families abroad (Guarnaccia et al. 2002).

The 1.5 million migrants from the Dominican Republic account for approximately 3.0% of the U.S. Hispanic population in 2010. Dominicans are the nations fifth largest population of Hispanic origin living in the US. (Motel and Patten 2012b: PEW). “Eight-in-ten Dominicans (79%) live in the Northeast, and nearly half (48%) live in New York.” (Motel and Patten 2012a:PEW) Most Dominicans have concentrated heavily in a Dominican enclave in Washington Heights, NY, but it does not match the Miami enclave of Cubans in Miami, socially nor economically (Guarnaccia et al. 2002).

To conclude, I want to emphasize the potency of Latino ethnic and gendered heterogeneity and the importance of disaggregating Latinos as such. This purpose attests to the significance of highlighting findings by ethnicity and gender.

**The Stress Buffering Theory and the Circumplex Model**

*Early Research on Stress and Health*

In *The Stress of Life*, (1956) Hans Selye summarized his endocrinological research on the physiological consequences of stress on laboratory animals. In his investigations, he exposed the laboratory animals to stressors in the form of “noxious” environments (i.e. high temperatures, electric shocks, or food deprivation). Subsequently, he identified three stages of physiological response to stressors which would later be confirmed in human subjects: (1) alarm, (2) resistance, and (3) exhaustion or the “depletion of bodily defenses against stress” which he linked to subsequent risks of high
blood pressure, heart disease and other negative physical responses (Holmes and Rahe 1967 in Thoits 2010:42).

About a decade later, stress research took off with the creation of an easily administered survey called the Social Readjustment Rating Scale to measure stressors in peoples’ lives that were social in nature rather than biological. In this scale psychologists Holmes and Rahe included 43 major life events that would require individuals to make a certain number of behavioral readjustments. For example, the death of a spouse would require the most behavioral adjustment, 100 “life change units” on a scale ranging from 0 to 100, and minor violations of the law required the fewest, 11. They hypothesized that the more life changes that an individual accumulated in a year; the more likely they were to be overtaxed, causing them to be more vulnerable and hence have a higher likelihood of infection, injury or disease. (Holmes and Rahe 1967; Thoits 2010). Hundreds of articles followed this crucial work, examining the relationship between stress exposure and health outcomes finding weak-modest, but significant and consistent relationships between events and outcomes. The research showed that stressful events explained only a modest amount of the variance in distress (Thoits 2010). This finding suggested that there was some component missing. Either the measurement of stress based on discrete life events did not adequately measure stress, or the health impacts of stress were being buffered by other factors, or possibly smaller, daily stressors had a greater impact. Stress scholars are more and more agreeing that the third option explains much of the discrepancy between events and outcomes (Burgos and Rivera 2009)
More Comprehensive Measures of Stress and Latinos

A review of four decades of stress research (Thoits 2010) yields four conclusions especially relevant to Latinos. Although early stress research focused on severe changes in people’s lives (divorce, job loss) as with the scale created by Holmes and Rahe (1967), this did not take into account the smaller yet incessant strains in people’s lives, such as poor health, a lack of material resources, inter-personal problems, role strains, (Lazarus and Cohen, 1977; Myers et al. 1974; Pearlin and Schooler, 1978; Pearlin et al., 1981; Wheaton, 1983), everyday perceived discrimination (Burgos and Rivera 2009) and family conflict. Although sometimes minor in magnitude when compared with large scale, traumatic life events, “the nagging persistence and "proximity" of ongoing stress [might] eventually take its toll in much the same way as do discrete events” (Cronkite and Moos, 1984:373).

Turner et al. (1995) measured “adversity cumulatively” and found that chronic strains on mental health were actually stronger than just isolated negative events or trauma. Burgos and Rivera (2009) agree that daily hassles and other stressors such as discrimination are expected to have worse mental health outcomes. In sum, events, traumas, and strains combined, termed “the cumulative stress burden” explain more variance in mental health outcomes, (25%-40%) than events alone (1%-12%) (Thoits 2010:43). This has important implications for Latinos who are subject to ongoing difficulties such as the subtle, structural and color-blind racism/discrimination of today (Bobo and Smith 1998; Sears and Henry 2003; Bonilla-Silva 2006).
Second, Thoits found that, “exposure to stress is unequally distributed in the general population and fosters inequalities in physical and psychological wellbeing” (Thoits 2010:43). Sociologists uniquely contributed to the study of stress research in their documentation and explanation of differences among social groups in stress exposure, health and wellbeing. Females, young adults, members of racial minority groups, divorced and widowed, poor and working class people had a significantly higher number of chronic strains in their lives. Therefore, this differential exposure to stressful experiences is one of the central ways that individuals, at the center of the ethnicity and gender intersection (Crenshaw 1989) are subject to higher psychological distress.

Third, Thoits found that “members of minority groups are additionally burdened by discrimination and stress which damages physical and mental health” (Thoits 2010:44). Discrimination according to Thoits is categorized into two types: (1) Major (ex. being refused a home loan) or (2) Minor (ex. chronic harassment). Findings show that discriminatory experiences are associated with poor self-rated health, chronic conditions, anxiety disorders, MDD, etc. and that acts that occur repeatedly such as discrimination actually have an equal or greater impact than recent life events on emotional wellbeing (Kessler et a 1999). Therefore Thoits asserts that “discrimination stress adds to the disproportionate burden of stressors borne by lower status, disadvantaged group members in the United States” (45). This reasoning is also scholars argue that “situating discrimination under the social stress model is analytically useful for understanding the limited life chances of...Latinos” (Burgos and Rivera 2009:154; Molina and Simon 2014).
Fourth and finally, “stressors proliferate over the life course and across generations, sustaining (and widening) the health gaps between advantaged and disadvantaged social groups” (Thoits 2010:45). Stress proliferation is a process whereby an initial stressor gives rise to additional stressors (Pearlin 1999, Pearlin et al 2005). For example, the demands of caring for an aged parent can eventually increase in intensity, which could affect job performance and even lead to job loss (Pearlin et al. 1997; Pavalko and Woodbury 2000). This mushrooming of primary stressors from one domain of life to another has been well documented (Bolger et all 1989; Dillworth and Kingsbury 2005; Grzywacz et al. 2002; Lorenz et al 1997). In the context of Latinos stressors can multiply over the life course such that childhood strains generate or lead to stressful experiences when the individual reaches adolescence, which is then carried on into adulthood. Other sources of stress particular to the experience of Latino immigrants are: the immigration process, strain leading to family conflict, language barriers and generational conflict.

A second way that stress can proliferate is across generations. For example parents who are dealing with multiple stressors (ex. single parenting, persistent poverty, poor job conditions etc) and who bear the “cumulative burden” of stress, often times have fewer emotional resources available for their children. They offer less warmth, attention, support and efficacious discipline to their children, which in turn, elevates the levels of psychological distress and depression in their children and increases the number of behavioral problems, while also perpetuating poor educational performance (Conger et al. 1994; Cooksey et al 1997; McLeod and Nonnemaker 2000; Menaghan et al. 1997, 2000; Simons et al. 1999; Wheaton and Clarke 2003 in Thoits 2010). This process is
particularly important to consider in the context of Latinos as it is part of the reproduction of social disadvantage from one generation to the next (Menaghan et al. 1997; Wheaton and Clarke 2003), and further may help to explain the widening health gaps by ethnicity, gender and class.

*Stress Buffering Research*

While some research made the measurement of stress more comprehensive, other research in the 1980’s began to explore variables that reduce the effects of stress on physical and mental health. At the most general level, stress-buffering is any coping resource which decreases the overall positive relationship between stress and physical or mental harm. (Barrera 1988; Wheaton 1985; Cohen and Wills 1985) “Stress-buffering is suggested when an indirect effect (through a coping resource) operates in a direction opposite to the overall (total) causal effect. In the present application, this means a negative component that attenuates, or equivalently, buffers an otherwise positive effect of stress” (Wheaton 1985:353).
As shown in Figure 1, there are two models that describe the stress buffering functions of coping resources: 1) additive effect buffering (the resource as a mediator, suppressor variable) and (2) the interactive effect buffering (the resource as a moderator variable).

The “additive effects model” elsewhere called “the Resource/Support Mobilization Model” (Barrera 1988) has been given little attention in the literature. Only a couple of studies I am aware of have found evidence pointing to this model. One is a study of social support by Aneshensel and Frerichs (1982) assess the causal relationships among stress, social support and depression from a community sample of 740 Los Angeles County adults. Interestingly in their study, social support was shown to have direct negative effects on current depression and indirect effects of subsequent depression. The other study of social support and personal resources in coping (Cronkite and Moos, 1984) is also done with longitudinal data on 267 married couples. The study seeks to examine the relationships between predisposing factors (such as low social status
or poor initial functioning), stress (spouse symptoms), moderating factors (coping strategies/family support) and subsequent functioning (depressed mood, physical symptoms and alcohol consumption). Cronkite and Moos found no stress-buffering effects of family support.

The additive effects model posits that social support suppresses the effect of stress, which leads to the decrease in psychological distress. It is a mediator model at its core where social support (in Figure 1), functions as the intervening variables. It specifies how or why a particular effect or relationship occurs. Mediators shed light on the psychological procedure that occurs to create the relationship, and therefore always refers to a dynamic characteristic of the respondent (i.e., emotions, behaviors, belief systems).

This additive model illustrated in Figure 1B (in Figure 1) explains that “each additional stressor leads to .4 more distress symptoms, that each stressor also leads to .5 more supportive contacts and that each additional supportive contact leads to .4 fewer distress symptoms.” (Wheaton 1985:355). Therefore, in the context of my study, family cohesion and religion would need to act as a mediator between discrimination and psychological distress in order to support the resource mobilization/additive model.

For this association to be true, two conditions must be met. First, there must be a positive correlation between discrimination and family cohesion/religiosity, because it is interpreted as evidence that stressful life events trigger mobilization of support. (Barrera

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2 So this model assumes that the total causal impact of stress on distress is the sum of two components: (1) The effect of stress on distress controlling for support (direct effect of stress on distress in Causal modeling language) (2) The effect of support on distress proportionalized by the degree to which stress produces changes in support. (An indirect effect of stress on distress). The central analytical concept is that the indirect effect (pt. 2) works in a direction opposite to the whole causal effect of stress on distress (Wheaton 1985: 356).
1988, Prelow 2006). Second, mediation is indicated when the relationship between the predictor variable and the outcome variable is non-significant after controlling for the effect of the mediator. In the context of the present study, Latinos reporting high perceived discrimination would be expected to have high family cohesion and religiosity, which in turn would be associated with lower psychological distress.

The interactive stress-buffering model exhibits moderation. “A moderator indicates when or under what conditions a particular effect can be expected. In the classic case, a relationship between two variables is significant (i.e., non-zero) under one level of the moderator and zero under the other level of the moderator.”

(https://www.uni.edu/butlera/courses/org/modmed/moderator_mediator.htm) The coping resource reduces the strength of the effect of stress on distress, as illustrated in Figure A of Figure 1. Statistically, a moderator is revealed through a significant interaction.

Cohen and Wills assert that a coping resource may intervene at two levels. (1) Between the stressful event and a stress reaction by attenuating it or preventing a stress appraisal response. (2) Between the experience of stress and the onset of the pathological outcome thereby reducing the stress reaction.

Barrera terms the interactive stress buffering theory the “cognitive appraisal process” in which the perceived availability of social support decreases the cognitively-appraised threat value of a stressful experience. For example, if an individual’s car breaks down while driving cross country, s/he may become highly distressed as the resources to cope with the situation are unavailable, however if his/her car breaks down in his/her hometown, there are likely more resources to call upon. So without preventing the
occurrence of the stressful event, cognitive processes involving perceived availability of social resources could alter the appraised stressfulness of the event.

The interactive stress buffing model has become dominant in the literature, with some refinements. According to Barrera (1988), stress-buffering is (1) only observable for certain types of social support. Early descriptions of the buffering model did not differentiate between the types of support (i.e. network size, availability of support, support satisfaction etc.). So there needs to be a clear distinction between structural measures assessing social integration and functional measures evaluating the supportive functions provided by social relationships (Cohen and Wills 1985; Barrera 1988). (2) Buffering occurs when supportive provisions match the needs presented by life events. This phenomena has been addressed by the specificity hypothesis, a refinement of the stress-buffering model (Cohen and Hoberman 983; Wilcox and Vernberg 1985), which suggests that social support is effective in minimizing the negative effects of stressors only when there’s a congruence between adaptable demands and support resources and (3) Buffering effects are not necessarily linear, rather there may be a possibility of a curvilinear interaction effect. For instance, at low levels of social support, stress reaches an asymptote where increases in stress does not equal increases in distress. On the other hand, at high levels of stress, social support lacks potency to appreciably decrease stress.

I will be studying the two alternate stress-buffering models for Latino/as to best understand the mechanisms through which family cohesion and religion operate in the context of discrimination and psychological outcomes.
Olson’s Circumplex Model

Within the last four decades, many models have been developed by family therapists and theorists to understand marital and family dynamics. Olson’s Circumplex Model (OCM) ([1989] 2000) is one of the many efforts to create a typology that describe marriage and family systems. His model is dynamic in that it is a three-dimensional model which combines family cohesion, family flexibility and marital/family communication. Importantly, these three dimensions emerged from a clustering of over fifty concepts by therapists who have independently come to the conclusion that these dimensions are critical to understand and treat marital and family systems. The central tenet of OCM is that balanced levels of cohesion and adaptability are the most favorable for optimal family functioning.

The first dimension of the model, family cohesion, has four levels. Family cohesion (togetherness) measures “the emotional bonding that families have towards one another” (Olson 2000:145). The first level is termed “disengaged” and is typified by emotional separateness where family members have little involvement in one another’s lives and are further separated in terms of time, space and interests. In this level, individuals are unable to turn to one another for support and problem solving at times of need. It is ranked “very low” on the scale of cohesion. “Separated” relationships make up the second level, which is considered a “balanced” degree of emotional bonding. This level is characterized by low to moderate levels of cohesion where there is some emotional separateness as far as time apart. However, there is still together-time, as well as joint decision-making and marital support. Also, at this level, a majority of activities
and interests are separate, but a few are shared. “Connected” is the third level of family togetherness which is also considered a “balanced” degree of bonding on the cohesion scale (moderate to high). It is set apart by emotional closeness and loyalty to the relationship. At this level, being together is prioritized over alone-time. Individuals do have separate friends, but most friends are shared by the couple. Furthermore, interests and activities are commonly shared but a few are separate. “Enmeshed” is the other extreme with very high levels of cohesion. This level is distinguished by extreme emotional closeness such that independence is not possible, loyalty is demanded and private space is not permitted. At this level all of the energy of the individual is focused inside the family, leaving no room for outside interests or even friends. According to Olson’s hypothesis, the balanced center yields the optimum family functioning. In this dimension the balanced center refers to the middle two levels (separated or connected) (2000).

The second dimension of the model is the marital and family flexibility, defined as “the amount of change in its leadership, role relationships and relationship rules” (Olson 2000), where the control, discipline, negotiation styles and role relationships are the key concepts that contribute to this measure. There are also four levels of flexibility outlined by Olson. “Rigid” is the first level and is characterized as having ‘very low’ flexibility. A rigid relationship is typified by limited negotiations, strictly defined roles and unwavering rules. In this relationship, decisions are imposed by the highly controlling leader. “Structured” relationships are considered one of the “balanced” levels of flexibility (low to moderate). In this level, leadership is more democratic, allowing
space for some negotiation with children as participants in the negotiations. Roles are relatively stable, although some sharing can occur, but rules are firmly enforced, with a few exceptions. “Flexible” is the next level which is also considered “balanced.” It exemplifies moderate to high levels of flexibility in households with egalitarian leadership. In these relationships there is a democratic approach to decision making. Roles are shared, negotiations are open and actively include children and, when necessary, rules can easily be changed and are age-appropriate. The final level is characterized by a “very high” degree of flexibility, and is called “chaotic.” In this level, relationships are erratic and have limited leadership. Decisions are not pre-meditated but rather impulsive, and roles are unclear and shift from person to person. It is an overall unstable relationship. Again, the middle two levels (structured and flexible) are hypothesized to be the most functional over time and to yield healthier family systems than either extreme (Olson 2000).

The final dimension of the Circumplex Model involves marital and family communication, which is considered a “facilitating dimension.” Communication is deemed critical for facilitating movement on the other two dimensions. Communication in this model is measured by listening skills (empathy and attentiveness), speaking skills (speaking for oneself and not for others), self-disclosure (sharing feelings about self and the relationship), clarity, continuity tracking (staying on topic), and respect and regard (relate to affective aspects of communication and problem solving skills) (Olson 2000).

If we apply this family therapy model to the field of sociology, perhaps it may shed some light on our understanding of the interaction between family dynamics and
mental health. Much sociological research has alluded to a linear relationship between mental health and support such that, as support increases, mental health also improves. The “circumplex” notion of this model however argues that the two key dimensions, namely cohesion and flexibility, form a curvilinear relationship with variables associated with effective family functioning. For “clinical” or “non-normal” families, increases in cohesion eventually reach an asymptote, after which, there is actually a reduction in family functioning. As such, my research will empirically test for this hypothesis to see whether, in fact, the “balanced” center yields the highest level of mental health or if the relationship is more appropriately fit by a linear model in the context of Latino mental health.

**Potential Catalysts of Poor Mental Health: Discrimination and Family Conflict**

Although there are numerous factors that may contribute to problems of mental health among Latinos, one of the focuses of my dissertation is on the role of perceived discrimination and family conflict. After a brief introduction here, each of these variables will be discussed in detail below.

Not only are Latinos susceptible to all of the same genetic, biological and environmental factors that influence poor mental health in the rest of humankind, but they also carry the burden of dealing with the social stressor of discrimination as well. There is a growing scientific interest in investigating the extent to which perceptions of racial and ethnic discrimination adversely affect health (Harrell et al. 1998; Krieger 1999; Clark et al. 1999; Williams et al 2000, 2003; Dion 2001). Much of the literature demonstrates that generally, those who perceive high levels of discrimination are more likely to experience
poor mental health (Williams et al. 2003; Williams et al. 1997). However, much of the research on discrimination was carried out in the 1980s and early 1990s, and excluded other Latino ethnicities, such as Dominicans and El Salvadorans. The lack of up-to-date empirical research on Latino populations necessitates the study of the impact of discrimination on the psychological distress of this understudied population (Araujo and Borrell, 2006), a gap my dissertation aspires to fill by using the most up-to-date, NLAAS dataset, which includes the traditionally marginalized Latino ethnicities.

As for family conflict, the literature has also shown it to have a noteworthy impact on mental health. This is particularly true for minority families who have large family networks, but also struggle with a myriad of other problems such as acculturation, ethnic identity, conflicts related to generational status, etc. (Guarnaccia 2002). Latinos experiencing both, conflict with their family and discrimination from society could be especially vulnerable to mental health problems. To my knowledge, the interaction of these two variables as it affects psychological distress has not previously been studied within the NLAAS data set.

Defined as discrimination

Definitions of discrimination mainly emphasize unequal treatment among racial groups, but differ in the scope of unequal treatment they describe as discrimination (Pettigrew and Taylor 2000). The broadest definitions of discrimination have encompassed all inequality among racial groups, while the more narrow definitions have been restricted to only actions intended to harm the target group. Each academic field emphasizes a particular facet.
In the field of sociology, definitions of discrimination have been grounded in conflict theory (Blumer, 1958; Blalock, 1967; Reskin, 1988; Jackman, 1994; Tomaskovic-Devey, 1993), which asserts that beneficiaries of "systems of inequality" (usually non-Latino white males) try to maintain their powerful and privileged position by using their resources to exclude members of subordinate groups. This definition explains discrimination as conscious and strategic actions by privileged members to protect their own interests. For example, in employment, preferential treatment for members of the “in-group” served as a means to justify unequal treatment in hiring, firing and overall evaluation of employees who were considered “out-group” members (Krieger 1995, 1999; Reskin 2000; Pager and Shepherd 2008). Sociology has a long history of focusing on structural discrimination such as segregated communities, low-wage labor and under-privileged schools among other constructs which all diminish the life chances and mental health of ethnic minorities (Massey 1981, 1990, 2004).

Social psychology, on the other hand, has focused more on the innate psychological processes that compel people to discriminate against others. In this field, there is an emphasis on understanding the racial attitudes of the “perpetrators” of discrimination rather than the perspective of the ethnic minority target.

In the field of Public Health, however, there has been a shift in trying to understand the perspective of the ethnic minority target. In this field, social epidemiology has focused on quantitatively studying the discriminatory experiences of ethnic minorities. This allows an examination of the ethnic minorities’ perceptions of
discrimination rather than the racial attitudes of the perpetrators, which generally takes the form of “covert” expressions of inequality (Essed 1991; Harold 2000; Krieger 1999).

The new covert expression of differential treatment is the veiled face of discrimination today. It is characterized by the chronic unfair treatment experienced by minorities on a daily basis and has been termed everyday discrimination (Essed 1991). Everyday discrimination includes: being followed around in a store, being treated rudely, or as though you are not as smart etc. This is a reality for many minorities including Latinos. (Bonilla-Silva 2006)

A study of Latinos living in NY found that the prevalence of self-reported perceived discrimination was 38 percent (Stuber et al. 2003). In another study by Pew Hispanic Center, they found that the rate of experiences with discrimination was 34 percent (2010).

In turn, perceptions of discrimination can generate stress and bring about the onset of poor mental health as well as perpetuate its progression (Alegria et al. 2007; Willams and Mohammed 2009; Krieger 1999; Paradies 2006). For example, many studies have investigated the relationship between discrimination and various symptoms of poor mental health, such as depression, (Kessler 1999; Brown et al. 2000; Karlsen 2002; Watkins et al. 2011), anxiety (Kessler et al. 1990, 1999; Pager and Shepherd, 2008), daily moods (Broundy et al. 2007) and low self-esteem (Rumbaut 1994; Verkuyten 1998; Fisher 2000; Diaz 2001) This list and its respective literature make a strong case for the correlation between discrimination and negative mental health outcomes and highlight all of the nuances that effect this correlation.
Also a meta-analysis on discrimination against Latinos by Lee and Ahn (2012) found that the anxiety and depression appeared to have the strongest, most significant and positive correlation with discrimination among Latinos.

Discrimination and its relation to mental health among Latinos. The experience of discrimination is not unfamiliar to many Latinos in the US. Rather, Latinos are well acquainted with the many costs of discrimination, namely the psychological costs, such as feelings of depression, demoralization, hopelessness, and anxiety, fear and worry (Mirowsky and Ross 2003; Feagin and McKinney 2003).

One recent study, by Perez and colleagues, focusing on the prevalence and correlates of perceived discrimination among Latinos, found that American-born Latinos or those arriving in the United States at younger ages were more likely to perceive discrimination (2008). This could mean that younger Latinos have higher expectations for fair treatment than their parents or it could suggest that as Latinos achieve higher social status and become more assimilated they have a higher sensitivity to discrimination (Perez et al. 2008). They also found that young males were also more likely to perceive discrimination which could be due to potential increase in exposure, as minority men are more vulnerable to negative encounters with social institutions (Nyborg and Curry 2003). Interestingly, they found that Latinos with high ethnic identity (such as Cubans) were likely to be low on self-reported perceived discrimination (Perez et al., 2008).

For the Latinos who report high perceived discrimination, there are several empirical studies which find that discrimination is related to worse mental health outcomes. For example, Alegria and colleagues assessed the relationship between
discrimination and mood disorders and found that frequency of perceived discrimination was generally found to be an indicator for past-year depressive, anxiety, and substance use disorders (2007).

Similarly, Gee and colleagues (2006), in a study examining self-reported discrimination and their relation to mental health status among African descendants, foreign-born Mexican Americans, and Other Latinos in New Hampshire found that self-reported discrimination measures were associated with lower psychological well-being.

Additionally, Hwang and Goto (2008) examined the impact of perceived racial discrimination on the mental health of Latino and Asian college students. They found that both Asian American and Latino students reported experiencing similar exposure and reactions to different forms of discrimination. Furthermore, they found that irrespective of ethnic group, perceived racial discrimination was associated with higher levels of psychological distress, suicidal ideation, state anxiety, trait anxiety, and depression. An interesting difference between the two minority groups however is that Latino students were more likely to have been accused of doing something wrong (e.g. cheating, not doing share of work, and breaking the law), which was the cause of more stress. The authors also noted finding a stronger relation between discrimination and depression and suicidal ideation for Latinos. In contrast, Asian Americans evidenced higher risk for trait anxiety.

The above mentioned are a few examples of studies pertaining to the relationship between discrimination and mental health among Latinos, however one important limitation to consider is that, with the exception of just a handful of studies, little is
known about the chronic and routine experience of everyday discrimination and its impact on health across different Latino ethnicities (Perez et al. 2008). Studies on this association have found that increased levels of discrimination are associated with lower levels of mental health. Even fewer studies examine the mechanisms through which everyday discrimination influences the health status of Latinos (Molina et al. 2012). Despite the fact that recently there is research budding in this area, it seems insufficient, considering that projections for year 2020 indicate that Latinos alone will account for one out of every three people in the US (Lee 1998). This is of great significance as it indicates that the black-white dichotomy that dominated the dynamics in the US are no longer an accurate account of ethnic relations given the growth of the Latino population (Forman et al. 2002). These statistics and literature point to the importance of studying the disaggregated effects of discrimination on Latino mental health this time.

Another gap in the literature is that the studies that have been carried out are mainly local and geographically restricted. For example, Stuber et al. (2003) studied low-income African Americans and Latinos residing in New York City and found that racial and non-racial discrimination were associated with poor mental health. In fact, respondents who reported experiencing multiple domains of discrimination had a greater probability of reporting poor mental health than those who reported no experiences of discrimination. Likewise, Landrine and colleagues similarly found that there was a positive relationship between ethnic discrimination and psychiatric symptoms, such that as discrimination increased, psychiatric symptoms followed suit among Latino adults in California (2006). Krieger et al. (2005) also found that discrimination was associated
with psychological distress among a working class Latino subsample in the greater Boston area; Massachusetts. So although similar trends are being seen in all of these locations (New York City, California and Boston), generalizing these findings to the whole of the US is still assumptive. In contrast, the NLAAS was conducted on a nationwide level.

**Family Conflict**

A sizeable body of social science research has evidenced a relatively consistent finding that family structures (such as marriage and extended family networks) and processes (such as family cohesion and conflict) are regarded as influential social determinants of mental health (Liu and Umberson 2008). Some studies have found that cohesive and supportive family relationships lead to emotional satisfaction and alleviate and buffer against some of the poor mental health symptoms such as distress (Riviera et al. 2008; Ren 1997), depression (Alegria et al 2007) and other psychiatric disorders (Cook et al. 2009). However, struggling with various forms of conflict within the family has been found to lead to worse health assessments (Ren 1997). For example, Demo and Acock (1996) found that marital conflict was a strong predictor of global well-being, depression and self-esteem among mothers. Also, Alegria et al. found that family conflict and burden were consistently related to the risk of mood disorders (2007). Horowitz and White found that marital conflict was associated with adverse mental health reactions, such as excessive drinking, depressive symptomatology, and anxiety as well as other physical symptoms (1991). Hovey found that family dysfunction and ineffective social
support were predictors of depression while the provision of emotional support seemed to ease acculturative stress (2000; 2002).

Clearly, family conflict and cohesion are important components in understanding health disparities; however some debates have arisen regarding the universality of these relationships for people of color (Barrett and Turner 2005; Ren 1997). There have been few formal empirical tests completed to fully examine the role of family ties as a catalyst or resiliency factor for mental health among people of color, namely Latinos (Alegria et al. 2007; Finch and Vega 2003).

*Family conflict and its relation to mental health among Latinos.* The literature has been relatively sparse regarding the quality of family relationships in regards to mental health for Latinos. Guarnaccia (2002) argues that although Latino families tend to have large familial networks that could potentially serve as social support, there remains is a gap between what Latinos expect in terms of family support and what is actually available to them, causing a considerable amount of tension.

Table 2. Household Income among Households Headed by Hispanics compared to US Total

<table>
<thead>
<tr>
<th>Among households headed by...</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All Hispanics</td>
<td>$39,000</td>
</tr>
<tr>
<td>Native-born Hispanics</td>
<td>$42,400</td>
</tr>
<tr>
<td>Foreign-born Hispanics</td>
<td>$35,900</td>
</tr>
<tr>
<td>U.S. total</td>
<td>$50,000</td>
</tr>
</tbody>
</table>

Source: Adapted from Pew Research Hispanic Center tabulations of 2011 American Community Survey
Many explanations have been hypothesized about the sources of family conflict for Latinos. First of all, as a group, Latinos frequently have multiple family members working for low wages for long hours, and have low household incomes. Moreover, out of modest earnings, Latino immigrants are often sending remittances to family members in their home country (Alegria et al. 2007). Even with all eligible family members working, the Pew Research Hispanic Center survey results show that the median household income is lower for Hispanics than the US overall. The U.S. total median household income is $50,000, and the “households headed by Hispanics” is $39,000. (See Table 2)

Therefore, Hispanics are making a 28 percent lower median income than the US population overall—a significant disparity. Moreover, the Hispanic poverty rate (26%) is 10 percent higher than the U.S. poverty rate overall (16%), (see Table 3).

Table 3. Poverty Rate Comparison

<table>
<thead>
<tr>
<th>Race</th>
<th>Poverty Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>26%</td>
</tr>
<tr>
<td>U.S. total</td>
<td>16%</td>
</tr>
<tr>
<td>Black</td>
<td>28%</td>
</tr>
<tr>
<td>Asian</td>
<td>13%</td>
</tr>
<tr>
<td>White</td>
<td>11%</td>
</tr>
</tbody>
</table>

Source: Adapted from Pew Research Hispanic Center tabulations of 2011 American Community Survey

In addition to the financial burden, US-born and foreign-born Latino immigrants are also exposed to discrimination, which has been shown to have a negative impact on family ties and in turn on mental health. In fact, Stuber and colleagues found that 38 percent of Latinos report perceived discrimination. Perez and colleagues also found that
30 percent of Latinos perceived discrimination, with young males having higher perceptions of discrimination than others (2008). This could be because they are more sensitive to negative confrontations with in the public sphere (employment, government agencies etc) (Nyborg and Curry 2003) and/or that they have higher expectations for fair treatment than their parents (Perez et al. 2008). So the gap between the harsh reality of discrimination versus the idealistic expectations of equality leads to more stress which plays out in the home and leads to poorer mental health (Williams et al. 2003).

Furthermore, young Latino children are sent to US schools; in fact, 1 in 5 school children is Hispanic (Pew Hispanic Center 2009). This US socialization of young Latinos may increase family tensions in the form of intergenerational conflict when the parents or grandparents were immigrants to the U.S. Ruben Rumbaut refers to this as “dissonant acculturation” and says:

Indeed, growing up in immigrant families is often marked by dissonant acculturation, when children’s learning of English and American ways and simultaneous loss of the immigrant culture outstrips that of their parents. When that occurs, the linguistic and other cultural gaps between them can exacerbate intergenerational conflicts, cause the children to feel embarrassed of their parents as they try to fit in with native peers, and lead to role reversals, as children assume adult roles prematurely by dint of circumstance. (Rumbaut 2005:24)

Finally, there was a change in marital roles that contributed to the change in the family dynamic which can be tracked in the history of Latinos coming to America. I will take some time to elaborate on this process by which immigrants come to America as it can shed light on how family conflict begins when they arrive and as they become more acculturated.
Historically, there has been a change in the political economy of much of the Latin American world which consists of transitioning from subsistence farming to commercial farming. In the former economy, the whole family contributed to the family’s wellbeing, husbands and wives were both working alongside one another and having many sons was an asset. However, in the latter economy, sons became a financial burden and, in more affluent households, wives were ‘freed’ from agricultural labor as a status symbol. (Pedraza 1991). This freedom resulted in a total dependence on the husband. (This of course happened over the course of time). Wives were then sponsored to emigrate to the US where there is less resistance towards women working outside the home (Pedraza 1991) so as to help their families financial situation. “For the United States a crossover in sex differentials in migration occurred in 1930, after which women annually outnumbered men” (Houstoun et al 1984 in Pedraza 1991:304).

For example, Cuban women who immigrated participated in the labor force but saw the work as an opportunity to assist their families rather than an opportunity for self –actualization (Pedraza 1991). Thus, Ferree (1979) wrote that Cuban women were an example of employment without liberation as they “stretched the traditional view of women existing for the family to include employment as part of that role, while implying no necessary change in values” (Pedraza 1991). Cuban women were largely concentrated in the garment industry, however their work was generally regarded as a temporary means to return again to the middle-class position they were enjoying before immigration, at which point, it was expected that the wife would no longer work (Pedraza 1991). However as time passed, the act of emigrating and working became a
way of gaining personal autonomy and escaping total dependence on husbands (Pedraza 1991), and so the expectations that women would return to the home slowly diminished, therefore having a hand in transforming the marital roles.

Mexican and Puerto Rican women, however, experienced labor force participation in a much different way. For example, Mexican women would work in the garment industry to supplement their husbands’ inadequate income. In doing so, women became equal partners with their husbands, becoming decision makers, and, in a sense, moving towards an egalitarian partnership. In many cases, Mexican women had to become heads of households due to illness, death or abandonment of the husbands, making their factory work indispensable. Working gave Puerto Rican and Mexican women a greater sense of autonomy and egalitarianism (Pedraza 1991) also but a different pathway in getting there. In order to root their families in the US, these women spent large amounts of money on expensive and durable home goods rather than sending the money back in remittances. By contrast, the men would live a rather austere life in the U.S. in order to save up and return back to the way things used to be as fast as possible (Pedraza 1991).

With this glimpse into historical processes of immigration and labor force participation, it is clear how marital conflict would arise when the family would reunite, as the husband would likely still have certain expectations of traditional gender roles, which the wife might no longer be able to meet.
To summarize, higher financial burden, discrimination, increased intergenerational conflict, and dynamic changes in marital roles as a result of immigration have all been cited as pathways to family conflict.

Family conflict has also been linked to psychiatric disorders. In their study of eight subgroups of US Latinos, Alegria and her colleagues found that for Latinos who were US-born or arrived before age six (In-US-as-Child [IUSC]) and late-arrival immigrants [LAI], elevated family conflict was associated with increased risk for depressive and anxiety disorders; however, family harmony was one important factor to counter depression (2007). In another study of US Latinos, Riviera and colleagues (2008) also found that for Latinos as an aggregate group, family cultural conflict might exacerbate psychological distress and diminish the potentially beneficial effects of family cohesion. However, this association differs by Latino ethnicity. For example, there is no association shown for Puerto Ricans. Cubans have findings similar to the aggregate group, and Mexicans show that family conflict is more detrimental to their mental health than to other Latino groups.

**Potential Buffers against Poor Mental Health: Family Cohesion and Religion**

For the purposes of my study, I will be looking at the buffering role of family cohesion and religion. The few studies that focus on family cohesion and mental health assume a positive linear relationship, with more family cohesion leading to better mental health. However, based on Olson’s Circumplex Model of marital and family systems (Olson et al. 1989), too much family cohesion could actually be more of a risk than a protective factor against poor mental health. Olson posits that increased family cohesion
is associated with improved mental health to a point, and then further cohesion is associated with decreased mental health. He argues that the “balanced” level of cohesion is the most beneficial. My dissertation seeks to test empirically whether the relationship between family cohesion and mental health is linear, as generally assumed, or curvilinear as Olson’s model suggests.

The second buffer I will be focusing on is religion. Sociologists and psychologists alike have long been interested in the role that religion plays in the interpretation of and response to certain events and how this manifests itself in everyday life. Some (e.g., Ellis 1965) claim that “religion represents institutionalized irrationality and is deleterious to psychological functioning” (Hackney and Sanders 2003). Other psychologists (e.g., Jung 1933; Allport 1950) viewed religion a source of meaning and security which was associated with positive psychological health. With the debate thus framed, my research questions whether religion is beneficial in regard to psychological distress and as a moderator within the relationship between discrimination and psychological distress.

*Family Cohesion*

Family cohesion has been conceptualized as the degree of togetherness and emotional bonding that families have with one another (Olson 2000). The NLAAS dataset has operationalized this to include working well together, family respecting one another, spending time together etc. There has been a voluminous body of literature, which has recognized that cohesion serves as a protective factor against stress (Hovey and King 1996; Salgado de Snyder 1987) and is associated with better mental health (Farrell et al. 1995; Walton et al. 2010). Previous research has demonstrated that family
cohesion, or family bonding, (Olson et al. 1983) may serve as a buffer to psychosocial stressors (Collins 1994). In fact, people from families with high levels of togetherness have been found to display lower risks of developing and experiencing psychological distress and depression. (Meyerson et al. 2002, Aydin and Oztutuncu 2001, Harris and Molock 2000, Crane et al. 2005, (Burt, Cohen, and Bjork 1988; Friedrich et al., 1982; Reinhertz et al. 1989). Contrarily, low family organization and high levels of family conflict have been correlated with depressive symptoms and even suicidal behavior (Meneese and Yutrzenka, 1990; Pfeffer 1981; Reinhertz et al. 1989).

*Family cohesion and mental health in the Latino community.* One of the most distinctive dimensions of Latino families has been said to be the high level of perceived family cohesion and support (Sabogal et al. 1987; Riviera et al. 2008). One study, conducted by Ayon and her colleagues (2010), examined the role of discrimination and family cohesion or *familismo* on internalizing mental health symptoms among two generations of Latinos, youth and their parents. She found that high levels of *familismo* and overall involvement in the Latino culture served as a protective factor, operating to minimize the negative mental health effects of discrimination on Latino development. However, Ayon and her colleagues’ study were riddled with limitations.

First, it used the Latino Acculturation Health Project (LAHP) dataset, which consisted of a very small subsample of only one hundred and fifty families. Of this subsample, ninety four percent were actually Mexican. So although the dataset is called “Latino” Acculturation Health Project, only six percent represented other Latino ethnicities. This is certainly problematic as such research can only accurately speak to the experiences of Mexicans. Moreover, ninety four percent of the respondents in this study
were females. This would not have been a problem if the study were only looking at the experiences of mothers, but they specifically try to understand the plight of “parents” (male and female); as such, the results are not informative regarding the male perspective. Moreover, most of the participants were new immigrants (87.3%), with little education (36% some high school, and 23% high school graduates) and with low income ($24,191 which is $4,629 lower than the nationwide average income for this population). These factors greatly limit the research because women with little education and low income who have newly emigrated from Mexico are more likely to have traditional ideologies and perspectives so that their concept of *familismo* might be stronger than the reality and may not be reflective of the whole group sentiment. Thus, although this research does support the notion that cohesion buffers against stress, the findings cannot be generalized to the broader Latino population.

Additionally, Hovey and colleagues found a linear relationship between family support and lower levels of depression, such that the provision of emotional support from family eased stressful experience (Hovey and King 1996) among Latino immigrant and second generation Latino adolescents.

Despite the fact that Latinos are known for their close knit families (Hovey and King 1996) there are negative mental health outcomes if the family relationship begins to become conflicted due to external stressors. For example, the majority of Mexican Americans work in the services and industrial sectors of large Southwest cities such as San Antonio and Los Angeles (Guarnaccia et al. 2002) but there are still some who actively work in agricultural occupations making up the largest ethnic group among
migrant farm laborers (Chavez, 1992). The long work hours, harsh working conditions, and resulting isolation due to work schedules take their toll on immigrants’ family lives and in turn, on their mental health.

Religiosity

While religion is difficult to define, it is necessary to understand it. Clifford Geertz called it a “cultural system” (1973). Religion is a frame of reference within which people situate their thoughts and understandings about things like the origin of life, the meaning of life, morality, ethical standards, how to cope with problems in one’s life, and at the everyday practical level, it informs an overall lifestyle for those who endorse it. For example, At times of adversity, some people seek comfort in religion, and attend church more frequently, while others turn to other sources of comfort. This is what the literature refers to as “religious coping” (Wong, Rew and Slaikeu 2006)

Freud’s prediction concerning religion in Future of an Illusion was that it would eventually have to be discarded, arguing that “in the long run nothing can withstand reason and experience, and the contradiction which religion offers to both is far too palpable” (Freud 1927: 54) Freud was not alone in his opinion about religion. Psychologist Albert Ellis, president of the Rational-Emotive Therapy Institute in New York and a founder of the cognitive-behavioral psychotherapy echoed Freud and argued that, the less religious people are, the healthier they will be, emotionally (Ellis 1980, 1988). Much research has been conducted to this end. Hovey and Seligman (2007) found no relationship between religious coping and anxiety/depression among college students. Schafer (1997) found that the importance of religion was positively related to greater
distress. Oppositely, those who indicated that their belief in God was “uncertain” showed the lowest levels of distress, in a sample of 282 students at the California State University at Chico. Also, Sorenson and colleagues (1995) found that, in a sample of 261 teenage mothers, Catholics and those from other conservative religions, as well as mothers who more frequently attended religious services had higher depression scores. The highest scores were found among girls who were cohabiting while still regularly attending religious services. As such, Sorenson and colleagues concluded that religion fosters feelings of guilt, shame, incompetence, worthlessness and hopelessness.

On the other hand, Carl Jung was a Swiss psychiatrist and psychotherapist who counterbalanced Freud. He believed that religion helped to restore emotional stability and resolve mental conflict. For Jung, religion was a practical road to individuation as he quotes in his book *Modern Man in Search of Soul* (1933):

> During the past thirty years, people from all the civilized countries of the earth have consulted me. I have treated many hundreds of patients…Among all my patients… over (age) 35—there has not been one whose problem in the last resort was not that of finding a religious outlook on life. It is safe to say that every one of them fell ill because he had lost that which the living religions of every age have given to their followers, and none of them has been really healed who did not regain his religious outlook. (p. 229)

Much of the research on religious coping has found links between religious and spiritual variables and health (Bergin et al. 1987; Koenig 1997; Schumaker 1992). For example, Jarvis and colleagues found that religious attendance might help minorities cope with the hardship of disadvantageous circumstances (2005) by establishing socially protective ties that buffer stressors (Alegria et al. 2007). In another study done by Wong, Rew, and Slaikeu (2006), high levels of religiosity/spirituality were associated with better
mental health in adolescents. Furthermore, religious thought/activity was identified as the most important strategy used to cope with illness and lower rates of depression among elderly, hospitalized, medically ill men (Koenig et al., 1992). Oxman and colleagues also found that religious coping reduced mortality rates. They found that during the six month period following open-heart surgery, older persons who did not find strength or comfort in religion were at higher risk for death (1995).

Koenig and colleagues (2001) conducted a systematic review of 850 articles found on the religion-mental health relationship. Some of patterns found in the literature are mentioned here. For example, of 100 studies identified in a systematic review regarding well-being and life satisfaction, approximately 80 percent of them found religious beliefs and practices to be related to greater life satisfaction, happiness, positive affect and higher morale (2001). Koenig and colleagues also examined 101 studies on the relationship between religion and depression and found that the majority exhibited a correlation between lower rates of depression and higher religiosity. Moreover, they found that marital happiness and stability is greater among the more religious in 35 of the 38 studies examined in their review.

Religion and mental health in the Latino community. How does religion operate in the context of Latino mental health? Statistics show that “more than nine-in-ten Hispanics identify with a specific religion. That, along with several other measures of belief and behavior, means that Hispanics as a group are highly religious” (http://www.pewhispanic.org/2007/04/25/iii-religious-practices-and-beliefs/). Latinos who still adhere to religion may turn to religion for support against poor mental health.
As aforementioned, Reeves (1986) documented that the traditional, more collective modes of coping among Latinos included the church. Also, in a study of the prevalence and correlates of lifetime suicidal ideation and attempts among Latino ethnicities, Fortuna and her colleagues found that higher church attendance led to a decrease in suicidal behavior (2007). However, there are, yet again, inconsistent findings. Alegria and her colleagues found that “attendance of less than once/week, compared to attendance one or more times/week, was significantly associated with decreased likelihood of reporting any 12-month anxiety disorders” (Alegria et al., 2007). Essentially, it may be implied that the less a person attended church services, the less likely they were to report any anxiety disorder within the last year. But perhaps the order of cause and effect needs to be examined more closely. Could it be that the sample of people attending more than once a week were attending in order to cope with their anxiety, rather than their attendance being the cause of their anxiety? Clearly, more research is needed to understand the impact of religion on Latinos mental health.

Does religious affiliation have any effect on Latinos mental health? The Pew Hispanic Center collaborated with the Pew Forum on Religion and Public Life to conduct a nationally representative telephone survey of 4,016 Hispanic adults to find out about the changing faiths in the Latino community and how it transforms American religion.
In 2006 about 1/3 of all Catholics in the US were Latinos (http://www.pewhispanic.org/2007/04/25/changing-faiths-Latinos-and-the-transformation-of-american-religion/). This of course has its own set of implications for America considering the Roman Catholic Church is the nation’s largest religious institution. But it also has an important role to play on Latinos mental health. The Roman Catholic Church is an apostolic church which is different than the protestant church as well as other Christian denominations in its focus on the seven sacraments (Baptism,
Eucharist, Reconciliation, Confirmation, Marriage, Holy Orders and Anointing of the sick). These sacraments shape and inform the way God is portrayed and may have an effect on how Latinos cope with discrimination and psychological distress. Today, however, the Catholic share of the Latino population is declining, with increasing numbers of Latinos reporting Protestant affiliation or unaffiliated with any religion.

“Indeed, nearly one-in-four Hispanic adults (24%) are now former Catholics, according to a major, nationwide survey of more than 5,000 Hispanics by the Pew Research Center” (http://www.pewforum.org/2014/05/07/the-shifting-religious-identity-of-Latinos-in-the-united-states/). Within the NLAAS dataset, the Catholic Church claimed approximately 50% of the respondents, with around 15% preferring a protestant denomination of some sort, roughly 15% reporting “other” and about 15% either agnostic, atheist, no religious preference etc. The Pew Research Center reported that God is an “active force” in the lives of many Latinos. Latinos still “pray every day, most have a crucifix or other religious object in their home and most attend a religious service at least once a month” (http://www.pewhispanic.org/2007/04/25/iii-religious-practices-and-beliefs/). As such it is not a stretch to connect religiosity with mental health in the Latino community. I expect that Latino health findings will support Jung’s hypothesis that religion is a way to ease mental conflict.

**Covariates of Mental Health**

I will describe briefly some of the other variables that have been shown to explain the variance in mental health outcomes. In addition to ethnicity and gender discussed

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3 Question DA31b_1_ asks “What is your religious preference?”
above, covariates include: age, work status, education, income, marital status, acculturation and self-perceived socioeconomic status.

Age

Kessler et al. (2010) conducted a large scale epidemiological study investigating the relationships between age, chronic physical conditions and major depressive episodes (MDE) in developed and developing countries. They found that depression was more prevalent in younger respondents than it was in an older group (aged 65 and above) in developed countries. Specifically, they found that the prevalence of mental disorders remained stable and sometimes decreased with age. However, within the Latino population, it has been shown that lifetime psychiatric disorder prevalence estimates were highest among middle-aged Latinos at about 32 percent (Alegria et al. 2007) compared to the other age groups.

Furthermore, studies have found a correlation between age and perceived discrimination within the Latino community, with younger Latinos reporting more discrimination than older Latinos (Perez et al., 2008). My study has included age in the analyses as a categorical variable to understand these associations and correlations better.

Employment Status

Work status has been found to affect mental health levels. For example, it has been found that higher levels of unemployment are related to higher levels of stress and psychopathology. Paul and Moser recently conducted a meta-analysis across 237 cross sectional and 87 longitudinal studies and found an average overall effect size of 0.51, with unemployed persons reporting higher levels of psychological distress compared to
employed ones. The average percentage of persons with psychological problems among the unemployed was 34 percent, approximately 18 percent higher than employed individuals at 16 percent. An interesting finding they uncovered was that men were more distressed by unemployment than women, and blue-collar workers were more distressed than white-collar workers by unemployment (2009). Lorant and colleagues sought to understand if low socioeconomic status was related to higher amounts of depression, and if a change in socioeconomic status led to a change in the rate of depression as well. They found that a lowering in material standard of living, and other life circumstances was associated with an increase in depressive symptoms. Also, they found that negative effects were stronger than positive effects (Lorant et al., 2007). Aycan and Berry (1996) likewise reported that unemployment among immigrants to Canada had a negative impact on psychological well-being and mental health outcomes. Similar trends have been found among Latino samples. Matt and colleagues found that unemployment is related to higher levels of psychological distress (2006). As such, my study also controls for work status.

Education

Higher levels of education have been generally associated with better levels of physical and mental health (Muller 2002). However, in a study conducted in Santiago, Chile found a strong inverse association between education and the prevalence of Common Mental Disorders (CMD) such that less education was significantly associated with CMD holding all else constant (Araya, Lewis, Rojas and Fritsch 2003). The significance of education according to the study was not of a global benefit but localized. For example they point out a difference between Britain and Latin American studies of
education and income. They find that in British studies, income rather than education is more inversely associated with mental illness. Why and what factors cause the differing patterns to emerge? A more recent study done by Maria Sironi (2012) found that there was a significant relationship between higher levels of education and mental health in 23 countries across Europe using the European Social Survey. She admits that though the magnitude of the relationship is small, it is still significant. She concludes that education may not be the answer to prevent all mental depression, but that it may be instrumental in the fight to mitigate it (Sironi 2012). However further research is needed to determine just how important education is in the fight against mental health.

Other research on physical health has found the beneficial effects of education to mitigate physical impairments. For example, Klepac and Trkulja have found number of years of education to have a beneficial effect among patients diagnosed with Parkinsons disease, a degenerative disease of the central motor skills which is also caused by a deficiency of dopamine-generating cells in the midbrain (Jankovic 2007). In such patients, problems with thinking, behavior, and dementia often arise in the advanced stages of the disease. Also, depression is a common psychiatric symptom. However, Klepac and colleagues found an association between longer, better education and lower depression and better health related quality of life (Klepac and Trkulja, 2009). The authors posit that the beneficial effects of education could be due to the cognitive performance such as attention/memory, visuospatial and executive functions. Given these few mentioned findings among many others which speak to the importance of education, my study also adjusts for education.
Findings about the impact of income on mental health have been mixed. Some studies have found that once the basic needs are met such as food and shelter, then increases in income do not have more of an association with happiness nor do they decreases risk of mental health problems. (Kahneman et al. 2006; Dunn, Aknin and Norton 2008). Other studies have found that income is positively related to mental health such that lower income is associated with lower levels of mental health and likewise higher levels of income are associated with higher levels of mental health. (Gardner and Oswald 2007; Lorant et al. 2003). Lorant and colleagues conducted a meta-analysis of more than 50 cross-national epidemiologic studies on the relationship between socioeconomic status and depression. Although the studies in the meta-analysis had considerable divergence in the measurement of SES and depression, the researchers found that people with low income were at increased odds (1.81) of depression compared with those in the higher income categories (2003).

Sareen and colleagues (2012) sought to examine the relationship between income and mental disorders using a population-based longitudinal study. They found that the presence of Axis I and Axis II mental disorders was in fact associated with lower income. Also, participants in their study of 34,653 adults with a household income of $20,000 or less were at an increased risk of mood disorders in comparison to those who made $70,000 or more. Finally, a decrease in household income was also associated with an increased risk of mood or anxiety disorders and substance abuse. The literature has not come to any definitive conclusions regarding income and mental health, but it does point
to the influence that income has. As such my study has included income in the analysis as a categorical variable.

*Marital Status*

Many studies have pointed to an overall health advantage associated with being married. The advantage, in some cases, has been related to gender as research suggests that men generally benefit more from being married than women (Lillard and Waite, 1995). Nonetheless, the protective effect of being married for both genders has been found in much of the health literatures, both physical and mental health. (Markey et al., 2005) For example, married persons exhibit lower levels of rheumatoid arthritis, periodontal disease, ulcers, better general cardiovascular functioning and higher levels of overall self-reported health (Kiecolt-Glaser and Newton 2001; Markey et al., 2005). Also, marriage has been linked to improved psychological well-being and positive mental health outcomes such that married people enjoy lower rates of depression, have higher life satisfaction of quality of life, experience lower levels of stress, and even less cognitive decline in old age compared to those who are unmarried (divorced/separated or never married) (Waite and Gallagher, 2001; Williams, 2003).

The association between increased psychological distress and being divorced/widowed/never married has been documented in the Latino community (Rivera et al. 2008). Nguyen et al. (2002) likewise recorded the protective effects of being married against cognitive decline among a sample of elderly Mexican Americans. Also, Markides and Farrell (1985) found that unmarried persons within the Mexican community were more likely to experience depression than married persons. Again in
the Mexican community Vega and colleagues (1986) found that low-income Mexican American women who were divorced had higher levels of depression compared to their married counterparts. However, more recent studies have not found such a blatant correlation. Perrino and colleagues (2009) examined the correlates of depression among a low-income Cuban sample in Miami, and found no relationship between marital status and levels of depression.

Why are the findings once again mixed? In thinking about this answer another question arises: Is having a spouse more important or is the quality of the marriage more influential? To this end, Holist and colleagues applied the marital discord model of depression, which maintains that marital problems are an important antecedent in the development of depression, to the Latino community (2007). Specifically, they studied the relationship between marital satisfaction and depression with a group of 99 Brazilian women and found that marital satisfaction was in fact a strong predictor of depression. Further research is needed. Marital status was included in my study as a categorical variable: Divorced/Widowed, Never Married, and Married/Cohabiting with married persons serving as the reference category.

**Self-Perceived Socioeconomic Status (SPSES)**

“One of the most established findings in the social study of health and illness is that socioeconomic status (SES) is a compelling determinant of morbidity, mortality, and self-rated health” (Adler et al., 1994; Adler and Rehkopf, 2008 in Gong 2011). Previous research has typically focused on the conventional measures of SES, primarily education and income, and scholars have argued that those with high SES have the resources
available to them to attain better medical care, live in better neighborhoods and to establish and maintain helpful social networks (Mirowsky et al., 2000; Robert and House, 2000).

However, self-perceived socioeconomic status (herein referred to as SPSES) has more recently been surfacing in the literature which finds that perceptions of social standing have an equal impact on health. SPSES is a summary statistic that includes many significant disparities that are normally undetected by conventional SES measures (Cohen et al., 2008). Furthermore, more literature has been uncovering the surprising predictive power of SPSES. (Adler et al., 2000; Gianaros et al., 2007; Goodman et al., 2003; Leu et al., 2008; Operario et al., 2004; Singh-Manoux et al., 2003, 2005; Gong et al. 2011).

For example, in a recent study of Asian Americans done with the NLAAS dataset, Gong and colleagues (2011) found that typical measures of SES were non-significantly related to health (i.e. self-rated physical and mental health as well as physical discomfort and psychological distress). Rather, they found that SPSES, relative to others in the United States and people in their local community, showed a stronger association with health outcomes than the traditional SES markers.

Further empirical evidence has shown that high levels of SPSES are associated with more favorable health outcomes, including positive self-rated health, less depression and psychiatric disorders. It has also been shown to influence physical health resulting in lower chronic disease, obesity and risky health behaviors (Adler et al., 2000; De Castro et
al., 2010; Gianaros et al., 2007; Goodman et al., 2003; Goodman et al., 2007; Leu et al., 2008; Operario et al., 2004; Ostrove et al., 2000).

Two potential pathways have been posited by Gong and colleagues (2011) to explain why SPSES has been found to be a more influential predictor of mental health outcomes. First, SPSES is able to detect variations in social standing that are otherwise left out of conventional measures of SES such as quality of education. For example, one’s self-perception after attending an Ivy League school for four years versus going to a community college for the same amount of time. The second pathway from SPSES to health is through stress. Previous research has suggested that low SPSES may either increase stress directly or indirectly by making individuals more vulnerable to external stressors (Adler et al., 2000; Gianaros et al., 2007; Gong et al., 2011), which, in turn, effectuates negative health outcomes.

SPSES is of particular relevance to the Latino immigrant community as migration often alters career paths, family structures, social locations etc., leading individuals to experience rapid changes in SES (Gong et al 2011). For example, traditional measures of SES which highlight income might not be an accurate description of SES considering the amount of income being used as remittances. Also, it is possible that education or a degree received outside of the US may be less valued in the American labor market (Zeng and Xie, 2004). Another potential situation which conventional SES fails to detect is in the case when an immigrant who is a professional back home, works in a position beneath what s/he is qualified to do in the US. If, for example, a Cuban physician migrates to America and only finds work at the local 7/11, (as their degree in medicine is
not recognized in the US) they still hold themselves in high esteem and expect others to do the same. Furthermore, they are generally regarded as a doctor in their local community, not as a 7/11 cashier. This “relative self-perception” in relation to local community is an understudied issue in the literature. The notion that individuals’ self-perceived evaluations of status are relative to reference groups, where the people in one’s own nation, and people in one’s own community (Deaton, 2001; Gong et al., 2011) is of particular importance to Latino immigrant communities because, although some members may have a low level of education or income, they may still be considered to have a high status within their social or religious circle based on other measures (Adler and Stewart, 2007).

In sum, social status is not an entity which can simply be measured by one construct, such as income. It is a combination of many different aspects that should not be overlooked in the study of mental health outcomes in the Latino population. The present study takes both income (one of the traditional measure of SES) into account as well as SPSES.

**Acculturation: Latino Immigrant Health Paradox**

Despite immigrants’ low educational attainment and high poverty levels, they evidence better health and lower mortality rates than the average population (Acevedo-Garcia and Bates 2008; Franzini et al. 2001; Hayes-Bautista 2006). This health paradox has been well documented in the literature. For example, in regards to physical health, many studies have documented that infants born to Latino immigrant women tend to have better birth outcomes [i.e. lower rates of low birth weight (LBW), lower rates of infant
mortality (death within first year of life) than infants of US born women (Acevedo-
Garcia et al. 2005).

In examining adult mortality, Singh and Shiahpush (2001) found that mortality was significantly lower among immigrants than among US born (18% lower for men and 13% lower for women). An interesting caveat; they found that compared to the U.S. born counterparts of equivalent socioeconomic and demographic backgrounds, Black Latino immigrant men and women exhibited an even larger reduction in mortality (22% and 37% ) than White Latino immigrant men and women (17% and 11% lower).

Moreover, there also seems to be a health advantage for the Latino immigrant population in regards to mental health. For instance, In a study conducted by Grant and colleagues, they found that foreign-born Mexicans were at lower risk for mood, anxiety and substance use than their U.S. born Mexican-Americans and non-Latino white counterparts (2004).

There have been multiple pathways explaining the Latino health paradox. Acculturation can be defined as “the acquisition of the cultural elements of the dominant society” (Lara, Gamboa, Kahramanian, Morales, and Bautista, 2005). The assumption that the increasing acquisition of the dominant culture directly corresponds to systematic disengagement from the native culture (Rogler et al., 1991) has been challenged by the construct of enculturation. Enculturation is the process of preserving the norms of the native group (Kim and Ominzo, 2006), whereby individuals retain identification with their traditional ethnic culture (Alegria et al. 2007). So, individuals who are acculturated to the US but still maintain strong ethnic identities are what many theorists call
“bicultural individuals” (Schacter et al. 2010). Psychologists have repeatedly found evidence that bicultural individuals have better psycho-social outcomes (Lang et al. 1982; Ying 1995; Chen et al. 2008 in Schacter et al. 2012). While there is no exact definition or agreed upon measures of biculturalism, bilingualism has consistently been considered one of the key indicators of a bicultural identity (Lang et al. 1982; Ying 1995; Chen et al. 2008).

An obvious question arises: Why do bilingual immigrants report better health outcomes? There have been a few convincing potential pathways to explain this phenomenon: (1) language skills shape how immigrants form social connections (Mulvaney-Day et al. 2007; Jerant et al. 2008; Zhang and Ta 2009) (2) language impacts access to and level of friendship (Mulvaney-Day et al. 2007, Schacter et al., 2012 (3) Non-English speakers may be particularly vulnerable to discrimination, as well as more likely to have “limited access to health care, lower quality of care, limited employment opportunities, and higher stress levels (Gee and Ponce 2010 in Schacter et al. 2012), all of which may impact health. English-language proficiency often serves as a proxy to measure engagement in the US society because acculturation is not a tangible process (Blank and Torrechila, 1998). My study accounts not only for acculturation through a proxy of speaking English poor or well, but also biculturalism through the proxy of being bilingual.
CHAPTER THREE

PRESENT STUDY: HYPOTHESES, DATA AND METHOD

Hypotheses

Effect of Catalysts of Psychological Distress

Discrimination. **Research Question 1**: Is perceived everyday discrimination directly associated with psychological distress, controlling for sociodemographics? **Hypothesis 1**: Higher levels of perceived everyday discrimination will be related to increased levels of psychological distress.

Family conflict. **Research Question 2a**: Is family conflict directly associated with psychological distress, controlling for sociodemographics? **Hypothesis 2a**: Higher levels of family conflict will be related to higher levels of psychological distress. **Research Question 2b**: Does family cohesion moderate the effect of perceived everyday discrimination on psychological distress, controlling for sociodemographics? **Hypothesis 2b**: The interaction of perceived everyday discrimination and family conflict will be associated with psychological distress.

Effect of Moderators of Psychological Distress

Family cohesion. **Research Questions 3a**: Does family cohesion moderate the effect of perceived everyday discrimination on psychological distress, controlling for sociodemographics? **Hypothesis 3a**: Family cohesion will moderate the relation between perceived everyday discrimination and psychological distress. **Research Questions 3b**: Is
the relationship between family cohesion and psychological distress linear and inversely proportional, such that higher amounts of family cohesion are associated with lower amounts of psychological distress? Or is the relationship curvilinear, having a threshold, after which a further increase in family cohesion would be associated with a rise in psychological distress, as Olson’s model suggests? Hypothesis 3b: There will be a curvilinear relationship between family cohesion and psychological distress, with moderate family cohesion showing the lowest level of psychological distress as compared to those who are from either highly disengaged or highly enmeshed families (Olson 2000).

Religion. Research Questions 4a: How does church attendance relate to psychological distress, controlling for sociodemographics? Hypothesis 4a: I predicted that higher frequency of attending church services will be associated with lower levels of psychological distress. Research Questions 4b: Is the relation between perceived everyday discrimination and psychological distress moderated by church attendance, controlling for sociodemographics? Hypothesis 4b: I hypothesized that the relationship between discrimination and distress would be moderated by church attendance.

Research Questions 4c: How does the frequency of turning to religion during difficult times relate to psychological distress, controlling for sociodemographics? Hypothesis 4c: I hypothesized that turning to religion in times of hardship would be associated with lower levels of psychological distress. Research Questions 4d: Is the relation between perceived everyday discrimination and psychological distress moderated by turning to religion during difficult times, controlling for sociodemographics? Hypothesis 4d: I
predicted that the relationship between discrimination and distress would be moderated
by seeking comfort in religion during times of trouble.

*Effect of Control Variables on Psychological Distress*

*Ethnic group comparisons on psychological distress.* **Hypothesis 5a:** I hypothesized that Puerto Ricans would have the highest amount of distress compared to all other Latino ethnicities. **Hypothesis 5b:** I predicted that Cubans would have the least amount of psychological distress compared to all other Latino ethnicities.

*Gendered comparisons on discrimination and psychological distress.* **Hypothesis 6a:** I hypothesized that men are more likely to report discrimination than women. **Hypothesis 6b:** I hypothesized that women were more likely to report higher levels of distress than men.

*Age comparisons on discrimination psychological distress.* **Hypothesis 7a:** I hypothesized that young Latinos would be more likely to report higher levels of discrimination than older Latinos. **Hypothesis 7b:** I predicted that middle aged adults would be more likely to report the highest level of psychological distress compared with any other age group.

*Acculturation.* **Hypothesis 8a:** I predicted that higher levels of bilingualism (English and Spanish proficiency) would result in better mental health as compared with proficiency in just one language.

*Self-perceived socioeconomic status and psychological distress.* **Hypothesis 9a:** A perceived higher social status will be associated with lower levels of psychological distress.
Background

There have been four national epidemiological surveys that have focused on the mental health of Latino ethnicities: (1) the Hispanic Health and Nutrition Examination Survey [HHANES] (National Center for Health Statistics, 1985; Moscicki, et al. 1987), (2) the California site of the NIMH Epidemiologic Catchment Area Program [LA-ECA] (Regier et al. 1984; Karno et al. 1987), (3) the Mexican American Prevalence and Services Study [MAPPS Study] (Vega et al. 1998), and (4) the National Latino and Asian American Study [NLAAS] (Alegria and Takeuchi 2008). Internationally, there have been two parallel studies focusing on Latino mental health. (1) The Puerto Rico Epidemiologic Catchment Area study [PR-ECA] which is comparable to the LA-ECA and (2) the Mexico National Comorbidity Survey which is comparable to the National Comorbidity Survey. These surveys have provided for some significant findings on the prevalence rates of mood and anxiety disorders among Latinos, however, still, some limitations and gaps remain.

The HHANES, for one, is an outdated survey (1982-1984) that was used to study depression in Mexicans, Cubans and Puerto Ricans. Due to its cross-sectional survey design, statistically-significant risk factors could not be assumed to be causally related to depression (Moscicki et al. 1987; Narrow et al. 1990; Delgado et al., 1990; Potter et al 1994). Also, the survey's focus on depression meant that the true prevalence of other forms of psychological distress and associated risk factors among Latino respondents remained unknown (Potter et al., 1994).
The LA-ECA, which takes migration history into account when considering mental health, has the following limitations: (1) the study is outdated (1980-1985), (2) the sample population is mainly comprised of Mexicans and (3) it is not representative of the U.S. population due to the fact that the study was conducted in only five states in America.

Similarly, the MAPPS only focused on a Mexican sample in Fresno, California (Vega et al., 1998). Also, unlike the NLAAS, none of these three major studies have included Dominicans or some of the other fast-growing Latino groups such as Colombians and Ecuadorians (Guarnaccia 2002).

Although there have been many studies on Latinos in the past, their insight on mental health was limited, because they did not address the multiple and complex factors at play among Latino immigrants, such as family networks, the effects of discrimination and various aspects of Latino culture (Guarnaccia 2010, Alegria et al. 2007, Araujo and Borrell 2006). Many of these shortcomings are addressed with the NLAAS dataset.

**Method**

*Data Source*

I draw upon data collected from one of three nationally representative surveys administered by the Collaborative Psychiatric Epidemiology Surveys (CPES), with support from the National Institute of Mental Health (NIMH). The CPES were initiated in response to a need for comprehensive and up-to-date epidemiological data regarding correlates and risk factors of mental disorders among the general population but with a focus on minority groups.
CPES unites three nationally representative surveys: the National Comorbidity Survey Replication (NCS-R), the National Survey of American Life (NSAL), and the National Latino and Asian American Study (NLAAS). “These studies collectively provide the first national data with sufficient power to investigate cultural and ethnic influences on mental disorders” (http://www.icpsr.umich.edu/icpsrweb/CPES/about_cpes/background.jsp).

I will be using only one of these three surveys, namely the NLAAS, a nationally representative household survey of Latinos and Asians based on a stratified area probability sample design (Alegria et al., 2004; Heeringa et al., 2004). The NLAAS is the largest population-based survey to date of mental illness and service-use among Latinos and Asian Americans (Alegria et al., 2004). “Institutionalized persons including individuals in prisons, jails, nursing homes, and long-term medical or dependent care facilities were excluded from the study populations. Military personnel living in civilian housing were eligible for the study, but due to security restrictions residents of housing located on a military base or military reservation were excluded” (http://www.icpsr.umich.edu/icpsrweb/CPES/about_cpes/sample_design.jsp#nlaas).

The goal of the NLAAS was to evaluate how ethnicity, socioeconomic status, and environmental context contribute to explaining similarities and differences in mental health outcomes and utilization of services among Latinos and Asian Americans. As aforementioned, I focus my analysis on the Latino population alone.
### Sample Design

Table 4. Key Features of the Collaborative Psychiatric Epidemiology Studies (CPES) Sample Designs: NLAAS

<table>
<thead>
<tr>
<th>Sample design feature</th>
<th>National Latino and Asian American Study (NLAAS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey population</td>
<td>Latino and Asian-American adults, age 18+ residing in households in the coterminous United States, Alaska, and Hawaii. Exclusions include institutionalized persons and those living on military bases.</td>
</tr>
<tr>
<td>Sample frame</td>
<td>Four-stage national area probability sample with special supplements for adults of Puerto Rican, Cuban, Chinese, Filipino and Vietnamese national origin.</td>
</tr>
<tr>
<td>Sample size</td>
<td>27,026 sample housing units screened for eligible adults. 4,649 completed interviews with eligible respondents.</td>
</tr>
<tr>
<td>Special features</td>
<td>Sample linked to NCS-R for statistical comparisons. Selection of two adult respondents in a subsample of households. Two-phase sample design to control survey costs in final stages of data collection.</td>
</tr>
</tbody>
</table>

Table adapted from http://www.icpsr.umich.edu/icpsrweb/CPES/about_cpes/sample_design.jsp

“The NLAAS is based on a stratified probability sample design that includes multiple area probability sample components. (1) An NLAAS Core sampling of PSUs, area segments, and housing units that is designed to be nationally representative of all US populations including Latinos and Asians. (2) The NLAAS High Density (HD) supplemental samples, targeted oversamples of geographic areas with greater than 5 percent residential density for individual national origin groups of interest in the NLAAS.”

(http://www.icpsr.umich.edu/icpsrweb/CPES/about_cpes/sample_design.jsp#nlaas) HD sampling was employed to maximize cost efficiency. Table 6 shows how I handled this complex sampling design. It illustrates the design-based estimates of the regression parameters in the initial main model and also reports the design effects for the parameter estimates.
Procedure

Data collection was conducted by the University of Michigan’s Institute for Social research (ISR) between May 2002 and November 2003. The organizational structure of the field and central data collection staff for the NLAAS was divided into teams of six to twelve interviewers. Each team was supervised by a team leader. Approximately three to four teams formed a workgroup, which was supported by a team leader coordinator. Each workgroup was assigned to a regional field manager, who was responsible for the workgroup's interview production efforts, quality control, and personnel management.” (http://www.icpsr.umich.edu/icpsrweb/CPES/about_cpes/data_collection.jsp) An overview of the field organization and structure of the data collection for all three studies is described in Figure 4.
The NLAAS project also involved a significant amount of screening. From a total sample of 27,026 addresses, only 3,620 main respondent and 1,029 second adult interviews were completed.

(http://www.icpsr.umich.edu/icpsrweb/CPES/about_cpes/data_collection.jsp) See Table 5 for a general summary of data collection results.

(http://www.icpsr.umich.edu/icpsrweb/CPES/about_cpes/data_collection.jsp) (For a detailed description of the NLAAS data collection procedures, sample outcomes and calculation of response rates see Heeringa et al., 2004; Pennell et al., 2004; Alegria et al., 2004; Ortega et al., 2006).
Table 5. Interviews, Response Rate, Interview Length, and Number of Contacts for the NLAAS

<table>
<thead>
<tr>
<th>Component</th>
<th>Interviews</th>
<th>Response rate (%)</th>
<th>Average interview length (mins)</th>
<th>Average Contacts per interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>NLAAS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main respondent</td>
<td>3,620</td>
<td>75.7</td>
<td>161</td>
<td>9.2</td>
</tr>
<tr>
<td>Second respondent</td>
<td>1,029</td>
<td>80.3</td>
<td>152</td>
<td>11.6</td>
</tr>
</tbody>
</table>

Adapted from CPES data collection
http://www.icpsr.umich.edu/icpsrweb/CPES/about_cpes/data_collection.jsp

Study Sample

The analytic sample consists of 2554 Latinos from four distinct groups: 577 Cuban; 495 Puerto Rican; 868 Mexican; and 614 Other Latino. All respondents who wanted to be interviewed in Spanish were accommodated as the interviewers were proficient in both English and Spanish. “The weighted response rate for NLAAS was 75.7 percent among main respondents (77.6% for Latinos, 69.3% for Asians) (AAPOR Response Rate 3; AAPOR, 2004). For second respondents, the final response rate was 80.3 percent (82.4% for Latinos, 73.7% for Asians). (See Table 5)

Measures

Outcome Variable: Psychological Distress

Psychological distress was measured with the Kessler Psychological Distress Scale (K-10, Kessler et al. 2002). The K10 was developed with support from the U.S. government's National Center for Health Statistics for use in the redesigned U.S. National Health Interview Survey (NHIS). “The scales were designed to be sensitive around the threshold for the clinically significant range of the distribution of nonspecific distress in an effort to maximize the ability to discriminate cases of SMI from non-cases”
(http://www.hcp.med.harvard.edu/ncs/k6_scales.php). (See Kessler et al. 2003 for detailed description). A validation study completed in Boston on a small convenience sample found evidence that the scales perform quite well. The K10 is also included in the National Comorbidity Survey Replication (NCS-R) as well as in all the national surveys in the World Health Organization's (WHO’S) World Mental Health (WMH) Initiative. Clearly, it is a valid and reliable scale with stable psychometric properties and has been regularly included in population health surveys. (Chronbach’s $\alpha = .921$)

The K10 in this study is used as a screening instrument to test non-specific psychological distress with ten questions which focus on the signs and symptoms of depression and anxiety that an individual has experienced over the most recent four week period. The numbers attached to the respondent’s answers are summed up to give an idea of the psychological well-being of the individual. Scores range from 10 to 50. People seen in primary care who:

* score under 20 are likely to be well
* score 20-24 are likely to have a mild mental disorder
* score 25-29 are likely to have moderate mental disorder
* score 30 and over are likely to have a severe mental disorder (Kessler et al. 2002, Andrews and Slade 2001, https://www.tac.vic.gov.au/files-to-move/media/upload/k10_english.pdf)

**Sociodemographic Control Variables**

**Gender.** Sex was coded as 0= male and 1= female. This variable was included as a covariate for all models except those which were stratified by gender. Male is the reference category.

**Ethnicity.** I disaggregated the Latino population into four groups. Cuban, Puerto Rican, Mexican and Other Latino (Salvadorians, Dominicans etc.) This variable was
included as a covariate for all models except those stratified by ethnicity. Mexican was the reference category as it was the largest group.

Age. Age was originally a continuous variable with respondents ranging from 18-97 years old. However, it was recoded and included in the analysis as a categorical variable with 6 groups. (1) 18-24, (2) 25-34, (3) 35-44, (4) 45-54, (5) 55-64, (6) 65 and over 25-34 yr. olds were the reference category as that category claimed the highest number respondents.

Work status. Work status is divided into three response categories: (1) Employed, (2) Unemployed, (3) Not In Labor Force. “Employed” was the reference category.

Education. Education is partitioned into four categories. 0-11 years (some high school), 12 years (completed high school), 13-15 years (some college), greater than or equal to 16 years (college graduate). The 0-11 years of education category served as the reference category as most individuals fell into this category.

Income. Household Income is a continuous variable which I recoded as categorical. I separated the variable as such: (1) < $15,000, (2) $15,000-$34,999, (3) $35,000-$74,999 (4) >$75,000. < $15,000 is the reference category as it represents the greatest amount of the population.

Marital status. Marital status was measured as a categorical variable: “Divorced/Widowed,” “Never Married,” and “Married/Cohabiting.” Married/Cohabiting was the reference category in the analysis.
Self-perceived socioeconomic status (SPSES). Examining self-perceived socioeconomic status was one of the aims of the NLAAS and was assessed by the MacArthur Scale of Subjective Social Status (Adler et al., 2000). In this analysis, respondents were shown a picture of a ladder with the rungs ranging from 0 to 10 and asked to rate their self-perceived socioeconomic status relative to people in the United States (DA37), and people in their community (DA38), with a higher value representing a higher level of self-perceived socioeconomic status. Self-perceived socioeconomic status was included in the analysis as a continuous variable.

Acculturation. Since acculturation is not the main focus of my paper, I chose the ability to speak English (LP5D) as a basic proxy to measure acculturation.

Catalysts: Negative Influences on Psychological Distress

Perceived discrimination. Everyday discrimination was measured using a 9-item scale adopted from the Detroit Area Study (DAS; Jackson et al. 1995; William et al. 1997) which assessed perceptions of everyday discrimination. Respondents were asked to indicate how often in their day-to-day life they experienced any of the nine discriminatory items comprising the scale. They were as follows: (1) being treated with less courtesy than other people (DS1A), (2) being treated with less respect than other

1 DA38 was dropped from the analysis due to collinearity.

2 I originally included language proficiency, which provides a measurement by combining the ability to speak (LP5D), read (LP5E) and write (LP5F) as the main proxy for measuring acculturation, following the lead of Perez et al., 2008. However preliminary analysis found evidence of insignificance, so I dropped that construct from the analysis and replaced it with only the ability to speak English, as it was practically the most influential construct of the three.

3 I originally included the Ethnic Identity scale to serve as a proxy to measure the construct of enculturation which combined three questions to determine the extent to which respondents identified and shared time with members of their own ethnic groups. However this construct was dropped from the analysis due to insignificance.
people (DS1B), (3) receiving poorer service than other people at restaurants or stores (DS1C), (4) people acting as if they think the respondent is not smart (DS1D), (5) people acting as if they are afraid of the respondent (DS1E), (6) people acting as if they think the respondent is dishonest (DS1F), (7) people acting as if they think the respondent is not as good as they are (DS1G), (8) being called names or insulted (DS1H), and (9) being threatened or harassed (DS1I). I reverse coded the six response categories to range from never (1) to daily (6) such that higher scores would reflect greater frequency of discrimination. I then summed all the items together to create one measure of perceived discrimination. The internal consistency of the scale was high (α for the total sample = .905)

*Family conflict.* The family conflict scale is the sum of four questions. (1) Because you have different customs, you have had arguments with other members of your family arguing with family over different customs (FC11C), (2) Because of the lack of family unity, you have felt lonely and isolated. (FC11D), (3) You have felt that family relations are becoming less important for people that you are close to. (FC11F), (4) Your personal goals have been in conflict with your family (FC11G). Each question has three potential response categories (1) Hardly Ever or Never, (2) Sometimes (3) Often. The scale reliability coefficient was good (α = .787).

*Moderators: Positive Influences on Psychological Distress*

*Family cohesion.* The Family Cohesion measure in the NLAAS is a 15-question section (FC1-15) concerning family unity. I used a scale of three of the 15 questions following the lead of Rivera et al. 2008, and Ruben Rumbaut composed of three items: (1)
Family members like to spend free time with each other? (FC8) (2) Family members feel very close to each other? (FC9), Family togetherness is very important? (FC10). There is a high internal consistency of (α=.822). I reverse coded the questions so that higher score equal more family cohesion.

Religion. Religion and overall religiosity was studied using two questions as a proxy. The first asks about church attendance (DA33). This question probes the respondent about how frequently they attend religious services. Response categories were reverse coded such that higher values reflected higher amounts of church attendance. Also, the categories “attend church less than once per month” and “attend church 1-3 times per month” were grouped together as the coefficients show there's no difference at all between them in effect on distress. This was also used as the reference category for the regression analysis.

The second question pertaining to religion asks “When you have problems or difficulties in your family, work, or personal life, how often do you seek comfort through religious or spiritual means, such as praying, meditating, attending a religious or spiritual service, or talking to a religious or spiritual advisor?” There were four response categories ranging from often to never. I recoded the variable as a binary variable such that “often” and “sometimes” were combined to form 1 “Frequently Turn to Church” and response categories “rarely” and “never” were combined as 0 “Infrequently Turn to Church.”
Data Analytic Strategy

Missing Data

I examined the percentage of missing data on all study variables\(^4\). There was less than one percent of missing data on predictor and dependent variables. Given that missing values represented less than the recommended five percent for imputation (Tabachnick and Fidell, 2007), none of the variables with missing values were imputed; thus I allowed for listwise deletion in all analyses.

Descriptive Analyses

All descriptive analysis (univariate, bivariate, main effects and interaction models) were conducted using STATA 12.0 (Stata Corp. 2011. Stata Statistical Software: Release 12. College Station, TX, StataCorp LP.). Stata 12 is a powerful software which can account for complex survey design, allowing for calculation of the variance by way of standard errors in the face of clustering and stratification. The Taylor Series Linearization approximation of complex sample variances for weighted sample estimates of finite population means, proportions and linear regression coefficients were used to compute standard errors of estimates and the corresponding approximation to its variance.

STATA also has the capability to conduct weighted analysis of the CPES survey data. I set STATA to take the weights into account in all my analyses by using the NLAAS weight for the ‘Latino Sample only’ (NLSWTLAT). The weights were designed to enable the computation of “unbiased or nearly unbiased estimates of population

\(^4\)As additional variables were added sample size declined slightly due to missing values.
statistics and relationships (e.g. bivariate associations, regression relationships) for the larger CPES survey population of U.S. residents” (http://www.icpsr.umich.edu/icpsrweb/CPES/about_cpes/weighting/final_weights.jsp).

As for the goodness-of-fit for the models; the main effects model was assessed by the R2 coefficient of determination for each successive model. The estimates are presented in Table 21 (with all the models). Omnibus statistical tests were used to test overall significance for each of the interaction models and were computed as adjusted Wald tests (for continuous variables). I employ the use of the Wald test to build my models rather than the normal F-tests, as Heeringa and colleagues suggest in their Applied Survey Data Analysis: "In the analysis of complex sample survey data, the conventional F-tests are replaced with a Wald $\chi^2$ test statistic that is provided both as a chi-square test or as a transformed F-test statistic." (2010:85) Chapter 7 of the same text addresses the use of the Wald test statistic for joint hypothesis tests involving multiple parameters in estimated linear regression models as follows: "Stata presents adjusted Wald tests for the parameters in each model by default, where the standard Wald F-statistic is multiplied by (df – k + 1)/df, where df is the design-based degrees of freedom, and k is the number of parameters being tested (Korn and Graubard, 1990). The resulting test statistic follows an F-distribution with k and df – k + 1 degrees of freedom." (2010:214) So accordingly, I am using the design-based Wald tests for multiparameter and t-tests for the single parameters since the NLAAS is a complex sample survey data set.
**Moderation Analysis**

A series of regressions were conducted to test for the relationship between discrimination on psychological distress, examining the moderating effects of family conflict, family cohesion, and religiosity. Psychological distress, discrimination, family conflict and family cohesion were all scales where each item was summed together resulting in one cohesive measure which was used in the regressions. The proxies for religion were binary and categorical.

There were six models which included the covariates, the predictor variables and the interaction between discrimination and the predictor variables (family conflict, family cohesion and two religion items). I used this full factorial model to test how these predictor variables work through discrimination to effect psychological distress. Some Post-Hoc analyses were conducted on significant interaction models by way of testing for marginal effects to help interpret regression results and have a more nuanced understanding. As Cameron and Trivedi note “An ME [marginal effect], or partial effect, most often measures the effect on the conditional mean of Y of a change in one of the regressors, say Xk.” (2009:333) “The ME for categorical variables shows how P(Y=1) changes as the categorical variable changes from 0 to 1, after controlling in some way for the other variables in the model. With a dichotomous independent variable, the marginal effect is the difference in the adjusted predictions for the two groups, e.g. for blacks and whites” (Williams 2011:22).

There are different ways of controlling for the other variables in the model. Marginal Effects at the Means (MEMs), where other covariates are held at their mean
values. This has been a common option used for a long time, however it is not preferable as it is a set of values that no real person could actually have. For example if you had a dataset with age, ethnicity and gender, holding a variable at its mean could mean that the mean of ethnicity is 10.5 and the mean of gender is 52.7. However no real person could be 10.5 percent Cuban and 52.7 percent female. And thus, many researchers are moving away from marginal effects at the means. (Williams, 2011) Another way to control for the other variables in the model is with a method called Average Marginal Effects (AMEs) where you compare two hypothetical populations that have the same exact value on other independent variables in the model by doing a number of iterations of the equation. The assumption is that since only one variable would be the only difference between the two sets of populations, then any differences found between the two must be attributed to that particular variable (for example, ethnicity, or sex). However, many “are not convinced that treating men as though they are women, and women as though they are men, really is a better way of computing marginal effects”(Williams 2011:30). In both of the aforementioned options there is an average that is computed which I do use in some places in my analyses, but it ultimately hides the nuances across cases. For example, it could be that ethnicity has a different effect on younger people than it does for older people. For this reason, Marginal Effects at Representative Values (MERs) may be a superior alternative. MERs have the advantage of showing how the effects of variables vary by other characteristics of the individual. With MERs I can choose ranges of values and then see how the marginal effects differ across that range. As such I have tried to use this method as much as possible throughout my analysis. Much of the Post-
Hoc analysis led to me explore three-way interactions which are discussed below. I have plotted these predicted marginal means for a graphical representation of the interaction effects.
<table>
<thead>
<tr>
<th>Predictor</th>
<th>Est.</th>
<th>Linearized SE</th>
<th>t-Statistic (df)</th>
<th>p-Value</th>
<th>95% CI</th>
<th>$d^2$ (°B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>10.690</td>
<td>0.629</td>
<td>17.01</td>
<td>0.000</td>
<td>(9.429, 11.951)</td>
<td>1.447</td>
</tr>
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<td>Ethnicity</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Cuban</td>
<td>0.655</td>
<td>0.444</td>
<td>1.48</td>
<td>0.146</td>
<td>(-0.235, 1.546)</td>
<td>0.510</td>
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<tr>
<td>Puerto Rican</td>
<td>1.808</td>
<td>0.457</td>
<td>3.95</td>
<td>0.000</td>
<td>(0.891, 2.725)</td>
<td>0.816</td>
</tr>
<tr>
<td>All Other Hispanic</td>
<td>0.743</td>
<td>0.461</td>
<td>1.61</td>
<td>0.113</td>
<td>(-0.181, 1.666)</td>
<td>2.251</td>
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<tr>
<td>Mexican</td>
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<tr>
<td>Female</td>
<td>1.409</td>
<td>0.229</td>
<td>6.15</td>
<td>0.000</td>
<td>(0.950, 1.869)</td>
<td>0.709</td>
</tr>
<tr>
<td>Male</td>
<td>--</td>
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<td>--</td>
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<tr>
<td>18-24</td>
<td>-0.576</td>
<td>0.416</td>
<td>-1.38</td>
<td>0.172</td>
<td>(-1.41, 0.258)</td>
<td>0.970</td>
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<tr>
<td>25-34</td>
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<td>--</td>
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</tr>
<tr>
<td>35-44</td>
<td>0.166</td>
<td>0.337</td>
<td>0.49</td>
<td>0.623</td>
<td>(-0.509, 0.842)</td>
<td>0.802</td>
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<td>45-54</td>
<td>0.316</td>
<td>0.547</td>
<td>0.58</td>
<td>0.566</td>
<td>(-0.780, 1.413)</td>
<td>1.716</td>
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<tr>
<td>55-64</td>
<td>-1.303</td>
<td>0.546</td>
<td>-2.39</td>
<td>0.021</td>
<td>(-2.398, -0.208)</td>
<td>0.877</td>
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<tr>
<td>65 and Over</td>
<td>-1.709</td>
<td>0.836</td>
<td>-2.04</td>
<td>0.046</td>
<td>(-3.386, -0.032)</td>
<td>1.972</td>
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<tr>
<td>Work Status</td>
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<td></td>
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<tr>
<td>Unemployed</td>
<td>1.622</td>
<td>0.461</td>
<td>3.52</td>
<td>0.001</td>
<td>(0.698, 2.546)</td>
<td>0.645</td>
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<tr>
<td>Not in the Labor Force</td>
<td>2.322</td>
<td>0.481</td>
<td>4.82</td>
<td>0.000</td>
<td>(1.356, 3.288)</td>
<td>1.576</td>
</tr>
<tr>
<td>Employed</td>
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<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
|                          | 0-11 Yrs (Highschool Incomplete) | 12 Yrs. (Highschool) | 13-15 Yrs. (Some College) | ≥16 Yrs. (College Graduate) | Income | Source: Based on the 2002–2003 NLAAS data.
Notes: Subclass n = 2,517, R2 = 0.079, adjusted Wald test for all parameters: F (21,33) = 9.98, p>0.000. a -- denotes the reference category. |
<table>
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<tr>
<td></td>
<td>-.415</td>
<td>.361</td>
<td>-1.15</td>
<td>0.256</td>
<td>(-1.138, .309)</td>
<td>1.014</td>
</tr>
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<td></td>
<td>-.652</td>
<td>0.505</td>
<td>-1.29</td>
<td>0.202</td>
<td>(-1.666, 0.361)</td>
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<td>-1.153</td>
<td>0.572</td>
<td>-2.01</td>
<td>0.049</td>
<td>(-2.301, -0.005)</td>
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<tr>
<td></td>
<td>-.307</td>
<td>0.543</td>
<td>-0.57</td>
<td>0.574</td>
<td>(-1.395, 0.781)</td>
<td>1.928</td>
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<td></td>
<td>-.397</td>
<td>0.468</td>
<td>-0.85</td>
<td>0.400</td>
<td>(-1.335, 0.542)</td>
<td>1.568</td>
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<td></td>
<td>-.245</td>
<td>0.711</td>
<td>-0.34</td>
<td>0.732</td>
<td>(-1.67, 1.182)</td>
<td>2.469</td>
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<tr>
<td>Marital Status</td>
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<td>---</td>
</tr>
<tr>
<td>Divorced/Separated/Widowed</td>
<td>1.288</td>
<td>0.362</td>
<td>3.56</td>
<td>0.001</td>
<td>(0.563, 2.013)</td>
<td>0.633</td>
</tr>
<tr>
<td>Never Married</td>
<td>0.571</td>
<td>0.390</td>
<td>1.46</td>
<td>0.149</td>
<td>(-0.211, 1.352)</td>
<td>0.926</td>
</tr>
<tr>
<td>Married</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>---</td>
</tr>
<tr>
<td>Poor English Speaking Skills</td>
<td>-0.677</td>
<td>0.643</td>
<td>-1.05</td>
<td>0.298</td>
<td>(-1.967, 0.614)</td>
<td>3.936</td>
</tr>
<tr>
<td>SPSES</td>
<td>-0.386</td>
<td>0.117</td>
<td>-3.29</td>
<td>0.002</td>
<td>(-0.621, -0.151)</td>
<td>2.370</td>
</tr>
</tbody>
</table>
CHAPTER FOUR
UNIVARIATE AND BIVARIATE DESCRIPTIVES

Univariate Statistics

Demographics

Weighted descriptive statistics for the Latino sample demographics are presented in Table 7 (n=2,517). From this Table, we can draw a picture of the typical respondent in this study sample. The sample was relatively evenly distributed in terms of gender (51.9% female, 48.1% male). As for the distribution of the Latino ethnicities, the largest portion of the sample were Mexican (56.4%), followed by other Hispanics (28.9%), then Puerto Ricans (10.0%) and lastly Cuban (4.7%). The mean age of the participants was 38 years old (S.E. = .53), but respondent’s ranged anywhere from 18-97 years old. As for employment status, the majority of the sample was employed (63.5%), followed by about 28.9 percent who were “Not in the Labor Force” and finally there are approximately 7.6 percent of the sample whom were unemployed.

Most of the Latino population in this sample had 0-11 years of education (43.8%). About a quarter of the population did finish high school (24.5%) and about 1/5th of the population is in some sort of higher education either in college or university (21.3%). Ultimately, only 10.4 percent of the population has greater than or equal to 16 years of education (equivalent to completing a college degree). The irregular educational attainment is not reflected in the income that respondents generate. In fact, income in this

1 These results are not rounded like the results in the Table.
sample is relatively evenly distributed. <$15,000 (26.9%), $15,000-$34,999 (28.2%), $35,000-$74,999 (28.0%) and finally >$75,000 (16.8%). Although the NLAAS does not specify income under <$15,000, it is important to note that some of the respondents are living in poverty considering the poverty threshold for 2014 is $11,670 for one person in the household and $15,730 for two people living in the same household (http://familiesusa.org/product/federal-poverty-guidelines), and also Pew Research Hispanic Center survey results show that the median household income is lower for Hispanics than the US overall (2011 American Community Survey).

As for marital status, most of the respondents in the sample were married (64.4%), about 21.4 percent were never married and 14.2 percent were divorced/separated/widowed. Slightly more than half of the respondents spoke English well (52.2%). Finally, as for SPSES relative to other people in the US, the largest chunk of Latinos (24%) ranked themselves as average, about a 5 on a scale of 1 to 10 (See Figure 5).
<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>N</th>
<th>Estimated Proportion</th>
<th>Linearized S.E.</th>
<th>[95% Confidence Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1,127</td>
<td>0.519</td>
<td>0.013</td>
<td>(0.492, 0.547)</td>
</tr>
<tr>
<td>Female</td>
<td>1,427</td>
<td>0.481</td>
<td>0.013</td>
<td>(0.453, 0.508)</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cuban</td>
<td>577</td>
<td>0.047</td>
<td>0.005</td>
<td>(0.037, 0.057)</td>
</tr>
<tr>
<td>Puerto Rican</td>
<td>495</td>
<td>0.100</td>
<td>0.010</td>
<td>(0.081, 0.119)</td>
</tr>
<tr>
<td>Mexican</td>
<td>868</td>
<td>0.564</td>
<td>0.037</td>
<td>(0.490, 0.639)</td>
</tr>
<tr>
<td>Other Latinos</td>
<td>614</td>
<td>0.289</td>
<td>0.029</td>
<td>(0.230, 0.348)</td>
</tr>
<tr>
<td><strong>Age, years</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>403</td>
<td>0.207</td>
<td>0.013</td>
<td>(0.181, 0.234)</td>
</tr>
<tr>
<td>25-34</td>
<td>665</td>
<td>0.286</td>
<td>0.014</td>
<td>(0.260, 0.313)</td>
</tr>
<tr>
<td>25-44</td>
<td>594</td>
<td>0.223</td>
<td>0.009</td>
<td>(0.204, 0.242)</td>
</tr>
<tr>
<td>45-54</td>
<td>394</td>
<td>0.148</td>
<td>0.011</td>
<td>(0.127, 0.169)</td>
</tr>
<tr>
<td>55-64</td>
<td>267</td>
<td>0.062</td>
<td>0.005</td>
<td>(0.052, 0.074)</td>
</tr>
<tr>
<td>65 and Over</td>
<td>231</td>
<td>0.072</td>
<td>0.009</td>
<td>(0.054, 0.090)</td>
</tr>
<tr>
<td><strong>Employment Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>1566</td>
<td>0.635</td>
<td>0.018</td>
<td>(0.600, 0.671)</td>
</tr>
<tr>
<td>Unemployed</td>
<td>182</td>
<td>0.076</td>
<td>0.009</td>
<td>(0.057, 0.094)</td>
</tr>
<tr>
<td>Not in the Labor Force</td>
<td>806</td>
<td>0.289</td>
<td>0.020</td>
<td>(0.250, 0.329)</td>
</tr>
<tr>
<td><strong>Education, Years</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-11</td>
<td>994</td>
<td>0.438</td>
<td>0.018</td>
<td>(0.402, 0.474)</td>
</tr>
<tr>
<td>12</td>
<td>633</td>
<td>0.245</td>
<td>0.009</td>
<td>(0.227, 0.264)</td>
</tr>
<tr>
<td>13-15</td>
<td>567</td>
<td>0.213</td>
<td>0.013</td>
<td>(0.186, 0.239)</td>
</tr>
<tr>
<td>≥16</td>
<td>360</td>
<td>0.104</td>
<td>0.010</td>
<td>(0.083, 0.125)</td>
</tr>
<tr>
<td><strong>Household Income</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ $15,000</td>
<td>703</td>
<td>0.269</td>
<td>0.022</td>
<td>(0.226, 0.312)</td>
</tr>
<tr>
<td>$15,000-$34,999</td>
<td>692</td>
<td>0.282</td>
<td>0.013</td>
<td>(0.256, 0.309)</td>
</tr>
<tr>
<td>$35,000- $74,999</td>
<td>685</td>
<td>0.280</td>
<td>0.021</td>
<td>(0.238, 0.322)</td>
</tr>
<tr>
<td>≥$75,000</td>
<td>474</td>
<td>0.168</td>
<td>0.013</td>
<td>(0.143, 0.194)</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married/Cohabitting</td>
<td>1,599</td>
<td>0.644</td>
<td>0.014</td>
<td>(0.616, 0.672)</td>
</tr>
<tr>
<td>Divorced/Separated/Widowed</td>
<td>479</td>
<td>0.142</td>
<td>0.010</td>
<td>(0.123, 0.162)</td>
</tr>
<tr>
<td>Never Married</td>
<td>476</td>
<td>0.214</td>
<td>0.012</td>
<td>(0.190, 0.237)</td>
</tr>
<tr>
<td><strong>Speak (Acculturation Proxy)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>1,392</td>
<td>0.478</td>
<td>0.026</td>
<td>(0.426, 0.530)</td>
</tr>
<tr>
<td>Well</td>
<td>1,154</td>
<td>0.522</td>
<td>0.026</td>
<td>(0.470, 0.573)</td>
</tr>
</tbody>
</table>
Figure 5. Self-Perceived Socioeconomic Status by Percentage in the 2002-2003 NLAAS Adult Sample
Discrimination

My results showed that perceptions of discrimination, in general, were actually on the lower end of the scale. On a scale ranging from 0-54, the average was 16.35. This finding is surprising as Latinos have been a target of much discrimination with the recent burst in anti-immigrant sentiment. Why would a group whom have been targets of discrimination, have low perceptions of discrimination? One potential explanation in nations like the US, where much of the population is of immigrant descent, is that the opposition to immigration sometimes takes the form of nativism targeted primarily at “first-generation” immigrants. So because the NLAAS respondents consist of all generations of Hispanics (first, second and third), it could be that the sentiments of those who are second and third generation balance out the negative sentiments of the first
generation Latinos who have been the target of much discrimination. It’s also possible that immigrants do not report everyday discrimination as much as native born Latinos because they have more immediate hardships to deal with, such as language barriers, lack of employment/poor working conditions/ low wage work, poor living conditions, and separation from family.

**Bivariate Statistics**

*Demographics*

In building my model, I considered a series of scientifically relevant predictors requesting Taylor Series Linearization (TSL) for variance estimation. With weights, stratification and cluster codes taken into account I consider a series of relationships by regressing psychological distress on each of the candidate predictor variables. Table 8 presents the results of these initial bivariate analyses. I elaborate on these relationships further in the sections that follow.
<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>Parameter Estimate (Linearized S.E.)</th>
<th>Test Statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (n=2,554)</td>
<td></td>
<td>Wald F (1, 53) = 63.14</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>Male</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Female</td>
<td>2.06 (0.26)</td>
<td>t(53)=7.95</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>Ethnicity (n=2,554)</td>
<td></td>
<td>Wald F (3, 53) = 7.19</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>Mexican</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Cuban</td>
<td>0.26 (0.52)</td>
<td>t(53)=0.50</td>
<td>0.616</td>
</tr>
<tr>
<td>Puerto Rican</td>
<td>1.94 (0.45)</td>
<td>t(53)=4.32</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>Other Latinos</td>
<td>0.56 (0.44)</td>
<td>t(53)=1.27</td>
<td>0.211</td>
</tr>
<tr>
<td>Age, years (n=2,554)</td>
<td></td>
<td>Wald F (5, 53) = 0.35</td>
<td>0.880</td>
</tr>
<tr>
<td>25-34</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>18-24</td>
<td>0.2 (0.33)</td>
<td>t(53)=0.59</td>
<td>0.558</td>
</tr>
<tr>
<td>25-44</td>
<td>0.13 (0.35)</td>
<td>t(53)=0.37</td>
<td>0.714</td>
</tr>
<tr>
<td>45-54</td>
<td>0.38 (0.49)</td>
<td>t(53)=0.77</td>
<td>0.446</td>
</tr>
<tr>
<td>55-64</td>
<td>-0.18 (0.44)</td>
<td>t(53)=0.4</td>
<td>0.688</td>
</tr>
<tr>
<td>65 and Over</td>
<td>0.56 (0.83)</td>
<td>t(53)=0.68</td>
<td>0.498</td>
</tr>
<tr>
<td>Employment Status (n=2,554)</td>
<td></td>
<td>Wald F(2, 53) = 32.34</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>Employed</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Unemployed</td>
<td>2.30 (0.41)</td>
<td>t(53)=5.62</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>Not in the Labor Force</td>
<td>2.54 (0.42)</td>
<td>t(53)=6.03</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>Education, Years (n=2,554)</td>
<td></td>
<td>Wald F(3, 53) = 2.95</td>
<td>0.041</td>
</tr>
<tr>
<td>0-11</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>12</td>
<td>-0.54 (0.38)</td>
<td>t(53)=0.41</td>
<td>0.163</td>
</tr>
</tbody>
</table>
### Distress and Key Predictor Variables

Table 9 describes the weighted means and standard errors of the core study variables for total sample. The weighted mean of the sum of the nine discrimination items is approximately 16, and the range is 0-54. So it seems that on average the total sample does not perceive discrimination all that much. The weighted mean of the sum of the three family cohesion items is approximately 11 and the range is 0-12. So the total
sample of Latinos have relatively high family togetherness. The weighted mean of the total sum of the three family conflict items is about 6, and the range is 0-15. So the total sample experiences relatively moderate amount of family conflict. The weighted mean of the church attendance question is about 2.2, meaning that the majority of the total sample fall between attending church 1-3x/mo. – 1/wk and the weighted mean of the seek comfort in religion question is about .6, which points to the trend of Latinos turning to religion, more often than not, in times of hardship.

Table 9. Weighted Means and Standard Errors of Core Study Variables for Total Sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Linearized S.E.</th>
<th>[95% Confidence Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total(Sum) of Discrimination Items</td>
<td>16.349</td>
<td>0.303</td>
<td>(15.742, 16.957)</td>
</tr>
<tr>
<td>Total(Sum) of Family Cohesion Items</td>
<td>10.873</td>
<td>0.051</td>
<td>(10.771, 10.974)</td>
</tr>
<tr>
<td>Total(Sum) of Family Conflict Items</td>
<td>6.337</td>
<td>0.041</td>
<td>(6.255, 6.419)</td>
</tr>
<tr>
<td>Frequency Attend Religious Services</td>
<td>2.262</td>
<td>0.022</td>
<td>(2.219, 2.306)</td>
</tr>
<tr>
<td>Seek Comfort In Religion During Difficult Times</td>
<td>0.585</td>
<td>0.012</td>
<td>(0.562, 0.609)</td>
</tr>
</tbody>
</table>

**Descriptives by Latino Ethnicity**

*Demographics*

Table 10 summarizes the weighted proportions of the sample sociodemographics stratified by Latino ethnicity. Some of the observed trends from the table are as follows. Cuban, Mexican, and Others were more represented in the age group of 25-34, but Puerto Ricans in this sample were a bit older, the largest proportion of whom were around 35-44 years of age. As for education, Cubans had the largest proportion of respondents in the educational category of 12 years of education whereas the other three Latino groups all had a majority of respondents falling in the 0-11 years of education category (particularly Mexicans [53%, \( S.E. = 0.022 \)]). Income, when disaggregated by ethnicity, revealed an
asymmetrical pattern. Cubans had the highest proportion of respondents falling in the income bracket of $ $75,000 (28%, S.E. = 0.045). Puerto Ricans and Other Hispanics had the highest proportions of respondents who fell in the $35,000-$74,999 bracket (30%, S.E. = 0.024), and finally, Mexicans fell largely into the $15,000-$34,999 (31%, S.E. = 0.021). Regarding marital status, all Latino ethnicities had the larger portion of individuals fall under the married/cohabiting category. Finally, regarding English proficiency, Cubans and Other Latinos were relatively equally distributed between who was and who was not English proficient. Cubans who were not English proficient (50%, S.E. = 0.042) are practically identical to those who are English proficient (50%, S.E. = 0.042). Other Latinos who were not English proficient are (49%, S.E. = 0.025) nearly equivalent to those who were English proficient are (51%, S.E. =0.025). Mexicans were mainly not English proficient (60%, S.E. = 0.034) and conversely, Puerto Ricans were mainly English proficient (65%, S.E. = 0.028).
<table>
<thead>
<tr>
<th>Variable</th>
<th>Cuban Linearized S.E.</th>
<th>Puerto Rican Linearized S.E.</th>
<th>Mexican Linearized S.E.</th>
<th>Other Hispanic Linearized S.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>0.515 0.020**</td>
<td>0.515 0.021**</td>
<td>0.521 0.018**</td>
<td>0.518 0.022**</td>
</tr>
<tr>
<td>Female</td>
<td>0.485 0.020**</td>
<td>0.485 0.021**</td>
<td>0.479 0.018**</td>
<td>0.482 0.022**</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>0.207 0.028**</td>
<td>0.201 0.026**</td>
<td>0.211 0.019**</td>
<td>0.205 0.020**</td>
</tr>
<tr>
<td>25-34</td>
<td>0.284 0.025**</td>
<td>0.29 0.032**</td>
<td>0.287 0.018**</td>
<td>0.285 0.019**</td>
</tr>
<tr>
<td>35-44</td>
<td>0.221 0.025**</td>
<td>0.223 0.020**</td>
<td>0.225 0.013**</td>
<td>0.219 0.021**</td>
</tr>
<tr>
<td>45-54</td>
<td>0.12 0.014**</td>
<td>0.133 0.012**</td>
<td>0.156 0.019**</td>
<td>0.143 0.016**</td>
</tr>
<tr>
<td>55-64</td>
<td>0.093 0.009**</td>
<td>0.077 0.011**</td>
<td>0.053 0.006**</td>
<td>0.073 0.012**</td>
</tr>
<tr>
<td>65 and Over</td>
<td>0.074 0.010**</td>
<td>0.076 0.028*</td>
<td>0.07 0.011**</td>
<td>0.075 0.017**</td>
</tr>
<tr>
<td>Work Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>0.669 0.024**</td>
<td>0.601 0.034**</td>
<td>0.626 0.026**</td>
<td>0.66 0.024**</td>
</tr>
<tr>
<td>Unemployed</td>
<td>0.064 0.014**</td>
<td>0.074 0.017**</td>
<td>0.069 0.014**</td>
<td>0.09 0.013**</td>
</tr>
<tr>
<td>Not in the Labor Force</td>
<td>0.267 0.026**</td>
<td>0.325 0.036**</td>
<td>0.305 0.031**</td>
<td>0.249 0.020**</td>
</tr>
<tr>
<td>Education, YRS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-11</td>
<td>0.21 0.022**</td>
<td>0.327 0.028**</td>
<td>0.526 0.022**</td>
<td>0.343 0.023**</td>
</tr>
<tr>
<td>12</td>
<td>0.272 0.022**</td>
<td>0.3 0.022**</td>
<td>0.239 0.011**</td>
<td>0.235 0.021**</td>
</tr>
<tr>
<td>13-15</td>
<td>0.266 0.024**</td>
<td>0.263 0.022**</td>
<td>0.162 0.018**</td>
<td>0.286 0.022**</td>
</tr>
<tr>
<td>≥16</td>
<td>0.253 0.030**</td>
<td>0.11 0.015**</td>
<td>0.074 0.011**</td>
<td>0.135 0.017**</td>
</tr>
<tr>
<td>Household Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ $15,000</td>
<td>0.219 0.029**</td>
<td>0.258 0.019**</td>
<td>0.292 0.033**</td>
<td>0.237 0.019**</td>
</tr>
<tr>
<td>$15,000-$34,999</td>
<td>0.239 0.026**</td>
<td>0.223 0.021**</td>
<td>0.307 0.021**</td>
<td>0.261 0.030**</td>
</tr>
<tr>
<td>$35,000- $74,999</td>
<td>0.259 0.023**</td>
<td>0.297 0.024**</td>
<td>0.264 0.027**</td>
<td>0.309 0.033**</td>
</tr>
<tr>
<td>≥$75,000</td>
<td>0.282 0.045**</td>
<td>0.222 0.024**</td>
<td>0.137 0.012**</td>
<td>0.194 0.028**</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married/ Cohabitating</td>
<td>0.606 0.028**</td>
<td>0.54 0.032**</td>
<td>0.699 0.022**</td>
<td>0.578 0.021**</td>
</tr>
<tr>
<td>Divorced/ Separated/ Widowed</td>
<td>0.169 0.017**</td>
<td>0.175 0.028**</td>
<td>0.119 0.013**</td>
<td>0.172 0.015**</td>
</tr>
<tr>
<td>Never Married</td>
<td>0.225 0.024**</td>
<td>0.284 0.022**</td>
<td>0.182 0.018**</td>
<td>0.25 0.022**</td>
</tr>
<tr>
<td>Speak (Accult. Proxy)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>0.448 0.043**</td>
<td>0.276 0.027**</td>
<td>0.541 0.035**</td>
<td>0.430 0.029**</td>
</tr>
<tr>
<td>Well</td>
<td>0.552 0.043**</td>
<td>0.723 0.027**</td>
<td>0.459 0.035**</td>
<td>0.570 0.029**</td>
</tr>
</tbody>
</table>

Note. * p<0.05; ** p<0.01; *** p<0.001
Table 11 summarizes the estimate of the population totals in the US. For the Cuban sample, 577 observations have been analyzed which represents an estimated 1,002,354 Cubans in the total population of US adults. The weighted estimate of the total Cuban population of U.S. Adults in 2003-2004 who have experienced psychological distress are 31,207. For the largest group, the Mexican sample, 868 observations were analyzed which represents an estimated 12,263,511 Mexican population of US adults. Of this group, it is estimated that 439,464 Mexicans have experienced psychological distress in the year 2003-2004. The estimated total population of Latino adults in the US during 2003-2004 was 21,654,900, of which, it is estimated that a total of 1,965,592 experienced psychological distress.

Table 11. Estimate of the Population Total of Psychological Distress Stratified by Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>N</th>
<th>Estimated Population Total</th>
<th>Subpopulation Size</th>
<th>Linearized S.E.</th>
<th>[95% Confidence Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cuban</td>
<td>577</td>
<td>1,002,354</td>
<td>53</td>
<td>31,207</td>
<td>8,206.318</td>
</tr>
<tr>
<td>Puerto Rican</td>
<td>495</td>
<td>2,175,720</td>
<td>53</td>
<td>171,416</td>
<td>24,579.63</td>
</tr>
<tr>
<td>Mexican</td>
<td>868</td>
<td>12,263,511</td>
<td>53</td>
<td>439,464</td>
<td>150,489.1</td>
</tr>
<tr>
<td>Other</td>
<td>614</td>
<td>6,213,315</td>
<td>53</td>
<td>340,712</td>
<td>81,343.67</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2,554</td>
<td>21,654,900</td>
<td>53</td>
<td></td>
<td>1,965,598</td>
</tr>
</tbody>
</table>

Distress and Key Predictor Variables

Table 12 summarizes the weighted means and standard errors of the core study variables of the total sample stratified by ethnicity. Comparisons reveal some differences in the mean levels of psychological distress among the Latino ethnicities. Post-hoc analyses were also conducted to inspect whether there were significant mean differences
of psychological distress among each Latino ethnicity which I will discuss below.

### Table 12. Weighted Means and Standard Errors of Core Study Variables Stratified by Ethnicity

<table>
<thead>
<tr>
<th></th>
<th>Cuban</th>
<th>Linear S.E.</th>
<th>Puerto Rican</th>
<th>Linear S.E.</th>
<th>Mex.</th>
<th>Linear S.E.</th>
<th>Other</th>
<th>Linear S.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total(Sum) of</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological Distress</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Items</td>
<td>11.697</td>
<td>0.494**</td>
<td>13.398</td>
<td>0.295**</td>
<td>11.393</td>
<td>0.316**</td>
<td>11.736</td>
<td>0.441**</td>
</tr>
<tr>
<td>Discrimination Items</td>
<td>14.005</td>
<td>0.468**</td>
<td>18.065</td>
<td>0.548**</td>
<td>16.147</td>
<td>0.383**</td>
<td>16.231</td>
<td>0.519**</td>
</tr>
<tr>
<td>Family Cohesion Items</td>
<td>11.114</td>
<td>0.081**</td>
<td>10.541</td>
<td>0.084**</td>
<td>10.899</td>
<td>0.083**</td>
<td>10.965</td>
<td>0.089**</td>
</tr>
<tr>
<td>Family Conflict Items</td>
<td>6.249</td>
<td>0.101**</td>
<td>6.544</td>
<td>0.088**</td>
<td>6.283</td>
<td>0.070**</td>
<td>6.328</td>
<td>0.108**</td>
</tr>
<tr>
<td>Frequency Attend</td>
<td>1.945</td>
<td>0.057**</td>
<td>2.112</td>
<td>0.054**</td>
<td>2.318</td>
<td>0.035**</td>
<td>2.250</td>
<td>0.055**</td>
</tr>
<tr>
<td>Religion Services</td>
<td>0.520</td>
<td>0.026**</td>
<td>0.602</td>
<td>0.030**</td>
<td>0.610</td>
<td>0.011**</td>
<td>0.604</td>
<td>0.027**</td>
</tr>
</tbody>
</table>

Note. * p<0.05; ** p<0.01; *** p<0.001

Puerto Ricans reported the highest mean level of psychological distress \((M=13.40, S.E. = .30, p<0.01)\). The other three ethnic groups were fairly equal in their means of about 11. However, the difference between the mean for Puerto Ricans and every other group was statistically significant. Also there was a difference in mean levels of discrimination by Latino ethnicities. Puerto Ricans reported the highest mean levels of perceived discrimination \((M=18.07, S.E. = .55)\) followed by “All Other Hispanics” \((M=16.23, S.E. = .52)\), then Mexicans \((M=16.15, S.E. = .38)\) and lastly Cubans \((M=14.01, S.E. = .47)\).

Similarly there were significant mean differences in family cohesion across the
four ethnicities. Cubans reported the highest mean levels of total family cohesion \((M=11.11, \text{S.E.} = .08)\) while Puerto Ricans reported the lowest mean levels of total family cohesion \((M=10.54, \text{S.E.} = .08)\). There was a significant difference between the two means \((\beta=0.65, \text{S.E.} = 0.12, p>0.000)\) (Results not shown). Because the design-based 95\% CI for the difference in proportions did not include 0, the data suggest that the rate of family cohesion for Cubans was significantly higher than that for Puerto Ricans.

Family conflict is also relatively evenly distributed among the four ethnic groups. Puerto Ricans have the highest mean average of family conflict \((M=6.54, \text{S.E.} = .08)\) and Cubans report the lowest average of family conflict \((M=6.25, \text{S.E.} = .10)\). The difference between the two means, although small, was significant (results not shown)

In regards to the two religion variables, “Church Attendance” and “Seeking Comfort in Religion,” it seems that Mexicans attended church more than any of the other Latino populations \((M=2.318, \text{S.E.} = .04)\), and they also sought comfort in religion more so than their other Latino counterparts (Cuban, Puerto Rican, and Other Latinos) \((M=0.61, \text{S.E.} = .01)\). Cubans were the least religious ethnicity. They averaged the lowest church attendance \((M=1.95, \text{S.E.} = .06)\), and on average, they were the least likely ethnicity to seek comfort in religion in times of hardship \((M=0.52, \text{S.E.} = .03)\). The linear equation used to contrast the mean of Cuban with Mexican, Puerto Ricans and Other Hispanics was significant for both church attendance and seeking comfort in religion. Furthermore, the difference between the mean of Puerto Ricans with Mexicans for Church attendance is also significant. All other linear combinations of estimators were not significant (results not shown).
Descriptives by Gender

Demographics

Table 13 summarizes the weighted proportions of the sample sociodemographics stratified by Gender. Some of the observed trends from the table are as follows. As for ethnicity, the trends were about equal for men and women, there was a higher rate of Mexicans, followed by the next largest group Other Latinos, then Puerto Ricans followed by Cubans. Both women (28%, S.E.= 0.014) and men (30%, S.E.= 0.016) mainly fell in the age group 25-34 years old. As for Work Status, women (51%) and men (75%) both had the largest number of respondents fall under the employed category, however men had about a 24 percent increase in labor market participants than women. There was about the same amount of difference between men and women for those “Not in the Labor Force”. Approximately 41 percent of women were not in the Labor Force, whereas only 18 percent of men were not in the labor force. Again, about a 23 percent difference. Men and women were almost equivalently educated. As for income, women were more represented in the lowest income bracket ≤$15,000 (32%) while only 23 percent of men fell in this bracket. Rather, men were most represented in the $35,000- $74,999 at 31 percent where as women were less represented in this bracket (25%). There were some interesting differences in gender regarding marital status. 59 percent of women were married compared to 69 percent of men. Also, 21 percent of women were divorced, separated, or widowed compared to only 8 percent of men. And the never married category was comparable between both men (23%) and women (20%). Finally, both men and women were almost identical in their English speaking ability approximately 48
percent of men and women spoke poorly, and approximately 52 percent of men and women speak well.

Table 13. Weighted Proportions and Standard Errors of Sociodemographic Variables Stratified by Gender

<table>
<thead>
<tr>
<th>Variable</th>
<th>Female</th>
<th>Linearized S.E.</th>
<th>Male</th>
<th>Linearized S.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cuban</td>
<td>0.047</td>
<td>0.006**</td>
<td>0.046</td>
<td>0.005**</td>
</tr>
<tr>
<td>Puerto Rican</td>
<td>0.101</td>
<td>0.012**</td>
<td>0.099</td>
<td>0.010**</td>
</tr>
<tr>
<td>Mexican</td>
<td>0.562</td>
<td>0.041**</td>
<td>0.567</td>
<td>0.036**</td>
</tr>
<tr>
<td>Other Latino</td>
<td>0.290</td>
<td>0.030**</td>
<td>0.288</td>
<td>0.032**</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>0.196</td>
<td>0.016**</td>
<td>0.219</td>
<td>0.018**</td>
</tr>
<tr>
<td>25-34</td>
<td>0.276</td>
<td>0.014**</td>
<td>0.297</td>
<td>0.016**</td>
</tr>
<tr>
<td>35-44</td>
<td>0.219</td>
<td>0.015**</td>
<td>0.226</td>
<td>0.013**</td>
</tr>
<tr>
<td>45-54</td>
<td>0.155</td>
<td>0.012**</td>
<td>0.142</td>
<td>0.015**</td>
</tr>
<tr>
<td>55-64</td>
<td>0.070</td>
<td>0.007**</td>
<td>0.055</td>
<td>0.009**</td>
</tr>
<tr>
<td>65 and Over</td>
<td>0.083</td>
<td>0.011**</td>
<td>0.062</td>
<td>0.011**</td>
</tr>
<tr>
<td>Employment Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>0.513</td>
<td>0.020**</td>
<td>0.749</td>
<td>0.020**</td>
</tr>
<tr>
<td>Unemployed</td>
<td>0.076</td>
<td>0.008**</td>
<td>0.075</td>
<td>0.013**</td>
</tr>
<tr>
<td>Not in the Labor Force</td>
<td>0.411</td>
<td>0.023**</td>
<td>0.176</td>
<td>0.018**</td>
</tr>
<tr>
<td>Education, Years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-11</td>
<td>0.441</td>
<td>0.017**</td>
<td>0.435</td>
<td>0.023**</td>
</tr>
<tr>
<td>12</td>
<td>0.234</td>
<td>0.012**</td>
<td>0.256</td>
<td>0.014**</td>
</tr>
<tr>
<td>13-15</td>
<td>0.217</td>
<td>0.016**</td>
<td>0.209</td>
<td>0.017**</td>
</tr>
<tr>
<td>≥16</td>
<td>0.108</td>
<td>0.013**</td>
<td>0.100</td>
<td>0.012**</td>
</tr>
<tr>
<td>Household Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ $15,000</td>
<td>0.315</td>
<td>0.030**</td>
<td>0.227</td>
<td>0.019**</td>
</tr>
<tr>
<td>$15,000-$34,999</td>
<td>0.295</td>
<td>0.014**</td>
<td>0.270</td>
<td>0.018**</td>
</tr>
<tr>
<td>$35,000-$74,999</td>
<td>0.245</td>
<td>0.020**</td>
<td>0.313</td>
<td>0.026**</td>
</tr>
<tr>
<td>≥ $75,000</td>
<td>0.145</td>
<td>0.014**</td>
<td>0.190</td>
<td>0.019**</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Married/ Cohabiting</td>
<td>Divorced/ Separated/ Widowed</td>
<td>Never Married</td>
<td>Speak (Acculturation Proxy)</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------</td>
<td>-----------------------------</td>
<td>--------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td></td>
<td>0.593</td>
<td>0.209</td>
<td>0.198</td>
<td>0.480</td>
</tr>
<tr>
<td></td>
<td>0.018**</td>
<td>0.014**</td>
<td>0.017**</td>
<td>0.030**</td>
</tr>
<tr>
<td></td>
<td>0.691</td>
<td>0.080</td>
<td>0.229</td>
<td>0.476</td>
</tr>
<tr>
<td></td>
<td>0.016**</td>
<td>0.010**</td>
<td>0.014**</td>
<td>0.028**</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Note. * p&lt;0.05; ** p&lt;0.01; *** p&lt;0.001</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Distress and Key Predictor Variables**

Table 14 summarizes the weighted means and standard errors of the core study variables of the total sample stratified by gender. Comparisons reveal some differences in the mean levels of psychological distress among males and females. Post-hoc analyses were also conducted to inspect whether there were significant mean differences of psychological distress among each group which I will discuss below. Females had a higher mean of psychological distress (M=12.760, S.E. 0.281) than males (M=10.655, S.E. 0.239). The difference in the means was significant (p=0.000). Furthermore, men reported a higher average of perceived discrimination (M=17.183, S.E.=0.446) than women (M=15.352, S.E.=0.241). Again, the difference between the means was significant (p=0.000). Next, men (M=10.950, S.E.=0.068) and women (M=10.831, S.E.=0.075) reported almost equivalently on the family cohesion scale. Men scored slightly higher, however the difference between means was not significant. As for family conflict, women (M=6.54, S.E.=0.066) averaged slightly higher than their male counterparts at (M=6.103, S.E.=0.082). Irrespective of the small increase in means, the difference between them was statistically significant (p=0.000). Fifth, women also
attended church more frequently on average (M=2.388, S.E.=0.040), compared to men (M=2.138, S.E.=0.033). The difference in the means was once again statistically significant (p=0.000). Finally, women more frequently sought comfort in religion on average, (M=0.701, S.E.=0.014) than men (M=0.507, S.E.=0.019). The difference in the means was likewise significant (p=0.000).

Table 14. Weighted Means and Standard Errors of Core Study Variables Stratified by Gender

<table>
<thead>
<tr>
<th></th>
<th>Female Linearized S.E.</th>
<th>Male Linearized S.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total(Sum) of Psychological Distress Items</td>
<td>12.760 0.281**</td>
<td>10.655 0.239**</td>
</tr>
<tr>
<td>Total(Sum) of Discrimination Items</td>
<td>15.352 0.241</td>
<td>17.183 0.446**</td>
</tr>
<tr>
<td>Total(Sum) of Family Cohesion Items</td>
<td>10.831 0.075**</td>
<td>10.950 0.068**</td>
</tr>
<tr>
<td>Total(Sum) of Family Conflict Items</td>
<td>6.540 0.066**</td>
<td>6.103 0.082**</td>
</tr>
<tr>
<td>Frequency Attend Religious Services Seek Comfort In Religion During Difficult Times</td>
<td>2.388 0.040**</td>
<td>2.138 0.033**</td>
</tr>
<tr>
<td></td>
<td>0.701 0.014**</td>
<td>0.507 0.019**</td>
</tr>
</tbody>
</table>

Note. * p<0.05; ** p<0.01; *** p<0.001

Correlations among Key Variables

All Cases

Table 15 presents weighted correlations among core study variables for the total sample. Family cohesion and family conflict had a strong and inverse relationship (r = -0.405, p<0.001) which suggested that, as family conflict increases, family cohesion
decreases. The next strongest correlation was between discrimination and family conflict ($r = 0.307$, $p<0.001$). As family conflict intensified, perceptions of perceived discrimination also grew or vice versa, as perceived discrimination increased, family conflict likewise escalated. Additionally, there was a strong, positive and significant correlation between family conflict and psychological distress ($r = 0.297$, $p<0.001$). This was not an unanticipated result, as much of the literature pointed to a robust relationship between the two. The next strongest correlation was between church attendance and seeking comfort in religion ($r = 0.277$, $p<0.001$). Not surprisingly, as seeking comfort in religion rose, church attendance likewise increased, and vice-versa. Moreover, family cohesion and discrimination were significantly inversely correlated ($r = -0.212$, $p<0.001$) meaning that as family cohesion increased perceived discrimination decreased, and vice-versa; as perceived discrimination increased, family cohesion decreased. Also, perceptions of discrimination and psychological distress were positively correlated ($r = 0.207$, $p<0.001$). Again, another commonly found relationship in the literature. As perceived discrimination rise, distress also increases. Interestingly, there was a highly significant correlation between seeking comfort in religion and psychological distress ($r = 0.077$, $p<0.001$) and between church attendance and family cohesion ($r = 0.076$, $p<0.001$).
Table 15. Weighted Correlations among Core Study Variables for the Total Sample

<table>
<thead>
<tr>
<th></th>
<th>Psychological Distress</th>
<th>Discrimination</th>
<th>Family Cohesion</th>
<th>Family Conflict</th>
<th>Church Attendance</th>
<th>Seek Comfort in Religion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological Distress</td>
<td>1.000</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Discrimination</td>
<td>0.207***</td>
<td>1.000</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Family Cohesion</td>
<td>-0.121***</td>
<td>-0.212***</td>
<td>1.000</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Family Conflict</td>
<td>0.297***</td>
<td>0.307***</td>
<td>-0.405***</td>
<td>1.000</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Church Attendance</td>
<td>-0.042*</td>
<td>-0.026</td>
<td>0.076***</td>
<td>-0.050*</td>
<td>1.000</td>
<td>--</td>
</tr>
<tr>
<td>Seek Comfort in Religion</td>
<td>0.077***</td>
<td>0.053**</td>
<td>0.052**</td>
<td>0.039*</td>
<td>0.277***</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Note. * p<0.05; ** p<0.01; *** p<0.001

Correlations by Latino Ethnicity

Table 16, Table 17, Table 18, and Table 19 describe the weighted correlations among the core study variables stratified by ethnicity. Table 16 focuses on Cubans. By order of strength, we see that the strongest significant correlation was between family cohesion and family conflict ($r = -0.425$, $p<0.001$). As family cohesion increased, family conflict decreased. Both the strength and direction of this correlation was true for all the ethnic groups. The next strongest correlation was between seeking comfort in religion and church attendance ($r = 0.403$, $p<0.001$). The third strongest correlation for Cubans was the positive correlation between family conflict and psychological distress ($r = 0.213$, $p<0.001$). The fourth strongest correlation was the negative association between family cohesion and discrimination ($r = -0.208$, $p<0.001$). Though I cannot determine causality from these statistical correlations, I can situate this finding in the literature which suggests that family cohesion protects against the negative effects of discrimination. As family cohesion increased, perceived discrimination decreased. On the flip side, I found a significant strong, positive correlation between family conflict and
discrimination, so as family conflict increased, perceptions of discrimination also increased. Again, although I can’t determine causality, the literature also supports this pathway.

There are some correlations which were only unique to Cubans. For example, although the correlation between psychological distress and church attendance was insignificant it is still interesting to note that it was the only group with a positive coefficient (r = 0.025) rather than a negative coefficient between the two. This was likewise true for the relationship between discrimination and church attendance (r = 0.002). Another unique trait to Cubans was that the relationship between family conflict and church attendance was only significant for Cuban (r = -0.087, p<0.05) and not for any of the other Latino ethnicities.

Table 16. Weighted Correlations among Core Study Variables Stratified by Ethnicity: Cuban

<table>
<thead>
<tr>
<th></th>
<th>Psychological Distress</th>
<th>Discrimination</th>
<th>Family Cohesion</th>
<th>Family Conflict</th>
<th>Church Attendance</th>
<th>Seek Comfort in Religion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological Distress</td>
<td></td>
<td>0.118**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discrimination</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Cohesion</td>
<td>0.139***</td>
<td>-0.208***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Conflict</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Church Attendance</td>
<td>0.2131***</td>
<td>0.1964***</td>
<td>-0.4253***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seek Comfort in Religion</td>
<td>0.0252</td>
<td>0.0027</td>
<td>0.1042*</td>
<td>-0.0865*</td>
<td></td>
<td>0.4033***</td>
</tr>
</tbody>
</table>

Note. * p<0.05; ** p<0.01; *** p<0.001

For Puerto Ricans the strongest correlation was between church attendance and seeking comfort in religion. (r = 0.329, p<0.001). Following this was the negative correlation between family conflict and family cohesion (r = -0.304, p<0.001). Third in line, by order of strength was a positive correlation between family conflict and
psychological distress ($r = -0.298, p<0.001$). As psychological distress rose, family conflict did likewise; or vice versa, as family conflict increased, psychological distress correspondingly increased. Next was the positive relationship between family conflict and discrimination ($r = 0.269, p<0.001$) and the final correlation I will mention was the negative association between discrimination and family cohesion ($r = -0.159, p<0.001$). As one increased, the other decreased.

Some of the relationships unique to the Puerto Rican community are between seeking comfort in religion and psychological distress. All of the ethnic groups had a significant correlation between these two covariates except Puerto Ricans. The association between was not significant ($r = 0.0134$). Moreover, the negative relationship between church attendance and discrimination was only significant for Puerto Ricans ($r = -0.133, p<0.01$) and All Other Hispanics ($r = -0.088, p<0.05$) but it was not significant for Cubans and Mexicans.

Table 17. Weighted Correlations among Core Study Variables Stratified by Ethnicity: Puerto Rican

<table>
<thead>
<tr>
<th></th>
<th>Psychological Distress</th>
<th>Discrimination</th>
<th>Family Cohesion</th>
<th>Family Conflict</th>
<th>Church Attendance</th>
<th>Seek Comfort in Religion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological Distress</td>
<td>---</td>
<td>0.142**</td>
<td>-0.0967*</td>
<td>0.2979***</td>
<td>-0.0803</td>
<td>0.0134</td>
</tr>
<tr>
<td>Discrimination</td>
<td>---</td>
<td>---</td>
<td>-0.1586***</td>
<td>0.2694***</td>
<td>0.1331**</td>
<td>0.0209</td>
</tr>
<tr>
<td>Family Cohesion</td>
<td>-0.0967*</td>
<td>-0.1586***</td>
<td>---</td>
<td>-0.3040***</td>
<td>0.1212**</td>
<td>0.1141*</td>
</tr>
<tr>
<td>Family Conflict</td>
<td>0.2979***</td>
<td>0.2694***</td>
<td>-0.3040***</td>
<td>---</td>
<td>-0.0690</td>
<td>0.0187</td>
</tr>
<tr>
<td>Church Attendance</td>
<td>-0.0803</td>
<td>-0.1331**</td>
<td>0.1212**</td>
<td>-0.0690</td>
<td>---</td>
<td>0.3292***</td>
</tr>
<tr>
<td>Seek Comfort in Religion</td>
<td>0.0134</td>
<td>0.0209</td>
<td>0.1141*</td>
<td>0.0187</td>
<td>0.3292***</td>
<td>---</td>
</tr>
</tbody>
</table>

Note. * $p<0.05$; ** $p<0.01$; *** $p<0.001$

The Mexican population had the highest correlation between family cohesion and family conflict also ($r = -0.371, p<0.001$) it was followed closely by family conflict and
psychological distress \( (r = 0.359, p<0.001) \), meaning that as family conflict increased psychological distress did likewise, or vice versa. The third strongest relationship was between family conflict and discrimination \( (r = 0.359, p<0.001) \). The fourth strongest correlation was between psychological distress and discrimination \( (r = 0.278, p<0.001) \). And finally the negative relationship between family cohesion and discrimination \( (r = -0.171, p<0.001) \).

Table 18. Weighted Correlations among Core Study Variables Stratified by Ethnicity: Mexican

<table>
<thead>
<tr>
<th></th>
<th>Psychological Distress</th>
<th>Discrimination</th>
<th>Family Cohesion</th>
<th>Family Conflict</th>
<th>Church Attendance</th>
<th>Seek Comfort in Religion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological Distress</td>
<td>---</td>
<td>0.2784***</td>
<td>-0.1706***</td>
<td>-0.2223***</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Discrimination</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Family Cohesion</td>
<td>-0.1706***</td>
<td>-0.2223***</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Family Conflict</td>
<td>0.3591***</td>
<td>0.2995***</td>
<td>-0.3713***</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Church Attendance</td>
<td>-0.0532</td>
<td>-0.0610</td>
<td>0.0960*</td>
<td>-0.0377</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Seek Comfort in Religion</td>
<td>0.0760*</td>
<td>0.0480</td>
<td>0.0666**</td>
<td>0.0611</td>
<td>0.1920***</td>
<td>---</td>
</tr>
</tbody>
</table>

Note. * \( p<0.05 \); ** \( p<0.01 \); *** \( p<0.001 \)

Finally All Other Hispanics had the strongest correlation between family conflict and family cohesion \( (r = -.482, p<0.001) \). This association was negative such that as one increased, the other decreased. This was followed by the positive correlation between family conflict and discrimination \( (r = 0.251, p<0.001) \). Then the positive relationship between family conflict and psychological distress \( (\beta = 0.288, p<0.001) \). Fourth, church attendance and seeking comfort in religion \( (r = 0.268, p<0.001) \) and finally psychological distress and discrimination. \( (r = 0.214, p<0.001) \).

There were some correlations that were unique to the All Other Hispanics group. First, the relationship between discrimination and seek comfort in religion was negative only for the All Other Hispanic group, whereas it was positive for Cubans, Puerto Ricans
and Mexicans. Also, the relationship between family cohesion and psychological distress was not significant for the All Other Hispanic group but it was significant for Cuban, Puerto Ricans and Mexicans. Third family cohesion and seeking comfort in religion was not significant but it was for the other groups and also about this relationship, it had a negative association, whereas the other groups have a positive relationship between the two ($r = -0.0200$). Finally, church attendance and family cohesion were insignificant, for the All Other Hispanics group, while it was significant for Cubans, Puerto Ricans and Mexicans.

Table 19. Weighted Correlations among Core Study Variables Stratified by Ethnicity: All Other Hispanic

<table>
<thead>
<tr>
<th></th>
<th>Psychological Distress</th>
<th>Discrimination</th>
<th>Family Cohesion</th>
<th>Family Conflict</th>
<th>Church Attendance</th>
<th>Seek Comfort in Religion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological Distress</td>
<td>---</td>
<td>0.2139***</td>
<td>0.0513</td>
<td>-0.0538</td>
<td>-0.0538</td>
<td>0.0934*</td>
</tr>
<tr>
<td>Discrimination</td>
<td></td>
<td></td>
<td>-0.2092***</td>
<td>0.2881***</td>
<td>0.0396</td>
<td>0.0204</td>
</tr>
<tr>
<td>Family Cohesion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Conflict</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Church Attendance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seek Comfort in Religion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. * $p<0.05$; ** $p<0.01$; *** $p<0.001$

**Correlations by Gender**

Table 20 summarizes weighted correlations among the core study variables stratified by gender. I will first discuss what I consider the two most thought-provoking findings this matrix identifies, both of which have to do with religion. First, church attendance and family cohesion was significantly correlated for men ($r = 0.149$, $P<.001$) but less significant for women ($r = 0.065$, $p<0.05$). The estimate was positive, meaning as church attendance increased, so did family cohesion. I can see that the effect of men's
church attendance on cohesion was larger than women's. Also the relationship between church attendance and psychological distress was inversely proportional for both men and women. Church attendance and psychological distress for men were negatively correlated \((r = -0.110, \ p<0.001)\), although this was a small effect, as it only explained one percent of the total variance in psychological distress it was nonetheless larger than the correlation found in the women population \((r = -0.061)\). Furthermore, this correlation was highly significant for men \((p<0.001)\) and less significant for women \((p<0.05)\).

Another interesting finding was between the variable seeking comfort in religion and family conflict. The relationship was uniformly weak and insignificant for both men \((r =0.051)\) and women \((r = -0.013)\), nonetheless it is interesting to note that for men, seeking comfort in religion and family conflict was associated with a positive correlation. As one went up, the other did likewise. However for women, the relationship was negative. So as seeking comfort in religion grew, family conflict declined for women, but the opposite was true for me. Some more investigation is necessary here. Moreover, seeking comfort in religion and family cohesion were significantly correlated for women \((r = 0.100, \ p<0.071, \ p<0.01)\), but insignificant for men \((r = 0.039)\).

<table>
<thead>
<tr>
<th></th>
<th>Psychological Distress</th>
<th>Discrimination</th>
<th>Family Cohesion</th>
<th>Family Conflict</th>
<th>Church Attendance</th>
<th>Seek Comfort in Religion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological Distress</td>
<td>---</td>
<td>0.272***</td>
<td>-0.114***</td>
<td>0.293***</td>
<td>-0.061*</td>
<td>-0.001</td>
</tr>
<tr>
<td>Discrimination</td>
<td>0.264***</td>
<td>---</td>
<td>-0.245***</td>
<td>0.381***</td>
<td>-0.030</td>
<td>0.011</td>
</tr>
<tr>
<td>Fam. Cohesion</td>
<td>-0.139***</td>
<td>-0.203***</td>
<td>---</td>
<td>-0.456***</td>
<td>0.065*</td>
<td>0.071**</td>
</tr>
<tr>
<td>Fam. Conflict</td>
<td>0.341***</td>
<td>0.285***</td>
<td>-0.316***</td>
<td>---</td>
<td>-0.043</td>
<td>-0.013</td>
</tr>
<tr>
<td>Church Attendance</td>
<td>-0.110***</td>
<td>-0.087**</td>
<td>0.121***</td>
<td>-0.068*</td>
<td>---</td>
<td>0.230***</td>
</tr>
<tr>
<td>Seek Comfort in Religion</td>
<td>0.091**</td>
<td>0.074*</td>
<td>0.039</td>
<td>0.051</td>
<td>0.208***</td>
<td>---</td>
</tr>
</tbody>
</table>

Note. * \(p<0.05\); ** \(p<0.01\); *** \(p<0.001\)

Correlations for men are below the diagonal line and correlations for women are above.
Portraits of Ethnic Groups and Genders

As segmented assimilation theory states, every immigrant has their own history, story and path. This is contrary to earlier notions of immigration and the adaptation process which was portrayed as initial economic hardships and discrimination then acceptance and finally assimilation. As various authors spoke about this process (Hamdlin 1951; Warner and Srole 1945; Wittke1952; Wilson and Portes 1980) they all pointed to the various processes which takes immigrants from “ethnic” to “American.” That ideal “anglo-conformity” was the over-riding theme (Wilson and Portes 1980). This could work for the earlier waves of immigration from Italy, Poland, Russia, Germany and other European countries, however, was not as simple to apply to the wave of colored immigrants from Cuba, Mexico, Puerto Rico, El Salvador, the Dominican Republic etc. These new immigrants were more “unmeltable” to the greater American community, and even among themselves. What follows is a discussion of the unique features of each Latino ethnicity.

Puerto Rican

The average Puerto Rican respondent in this sample was approximately 35-44 years old, with an incomplete high school degree, making on average 35-75k who is mainly English speaking. Puerto Ricans in this sample averaged the highest amount of psychological distress ($M=13.40$, $S.E=.30$, $p<0.01$) compared to any of the other three groups. They also had the highest amount of perceived discrimination, the lowest amount of family cohesion and the highest amount of family conflict according to the bivariate results.
Highest perceived discrimination. Puerto Ricans in this sample reported the highest mean levels of perceived discrimination \((M=18.07, S.E. = .55)\) of all the ethnicities. This also is consistent with preceding research. (Perez et al. 2008). There are many conceivable grounds to base why Puerto Ricans are at a higher risk for perceiving discrimination than other Latino ethnicities. Studies have found that Latinos who become more assimilated have a higher sensitivity to discrimination compared to their less acculturated counterparts (Perez 200:427). So Puerto Ricans who have been part of the US for the last 100 years and have picked up the American way of life are arguably the most assimilated culture of all the ethnic groups (Guarnaccia, Martinez and Acosta 2005; Rivera 2008). In turn, they perceive discrimination at higher rates than their Latino counterparts.

Another reason is the high economic strain on Puerto Ricans. Some statistics state that Puerto Ricans have the highest percentage of people living below the poverty level (26.1%) of all Latino groups (Ramirez and De la Cruz 2002; Riviera 2008). And among Puerto Ricans, the men have generally been relegated to the lowest levels of social hierarchy in the US compared to their other Latino counterparts (Rumbaut 2006; Fischer and Tienda 2006; Suarez-Orozco and Paez, 2009; Molina et al. 2012). This translates into practically having a higher unemployment rate than their Latino counterparts (9.6%) (Ramirez and De la Cruz 2002; Riviera 2008) which marginalizes them economically and socially which in turn shapes how they perceive everyday discrimination (Molina Dissertation, 2012: 175).
However, in my sample, Puerto Rican men were the second highest earners (after Cuban men) making an average of $54,154 per year, and still they had the highest report of psychological distress and perceived discrimination compared to the other Latino ethnicities. So the measure of self-perceived socioeconomic status is a critical key. My results showed that Puerto Ricans ranked pretty low (third out of four) in how they assess themselves in relation to the rest of the U.S.. Cubans had the highest self-perceived socioeconomic status, and Mexicans had the lowest. (They also make the least amount in terms of income at $M=42,162)

Finally, research has asserted that language isolation potentially protects Spanish-only speaking Latinos from perceiving racist comments, (Finch et al 2000, Vega and Gil 1998) and since the Puerto Rican sample was mainly English speaking, they are more aware of the discrimination around them and are not as protected from discriminatory comments like their counterparts.

Lowest family cohesion. Third, my findings show that Puerto Ricans had the lowest amount of family cohesion. This departs from past research which declared that Puerto Ricans, like the rest of the Hispanic community gave a great deal of importance to the construct of family and of familismo. Early research on Puerto Rican families in the US found that familismo emerged during the preindustrial agrarian society and was supported by the Catholic Church (Tumin and Feldman 1961; Fitzpatrick 1971). During this time the Puerto Rican community was set on preserving the family institution (Fitzpatrick 1971; Zayas and Palleja 1988) as it was the crux of economic, social and religious functions (Cortes 1995). But as my results show, preserving the family unit
(measured by high family cohesion) did not remain a strong hold for Puerto Ricans.

Why? What caused the shift in the prioritization of the family for Puerto Ricans? One prospective explanation as abovementioned is that when the Jones Act of 1917 granted citizenship to Puerto Ricans, they were able to move more freely between the mainland and the island of Puerto Rico. By 2008 over half of the population lived on the US mainland (Collazo et al. 2010). These migration patterns caused some turmoil in the Puerto Rican home (Rivera 2008).

Moreover, as Rivera et al. (2008) indicate, the colonial presence of the U.S. within the island render ethnic and patriotic sentiments to the island weaker for Puerto Ricans than for other ethnic groups (Guarnaccia and Martinez 2005). So their national identity is weaker and laden with confusion which also has a bearing on family cohesion and mental health (Phinney 1991; Anderson 1991; Phinney and Chavira 1992).

Finally, a study by Cortes (1995) made the connection between higher education and a move away from *familismo* values (Kagan 1981, Keefe 1980; Mindel 1980; sabogal et al. 1987). Cortes found that within two generations of Puerto Ricans in New York City, education consistently diminished beliefs in *familismo* and other traditional patterns dictated by their culture as they became aware of other belief systems through education. This explanation, although interesting does not hold true within the NLAAS population as Cubans, (not Puerto Ricans) are actually recorded as attaining the highest educational standard and yet are also reported to have the highest amount of family cohesion. Future researchers could delve into the relationship between family cohesion and education in the Puerto Rican population.
**Highest family conflict.** Fourth, my study further found that Puerto Ricans reported the highest amount of family conflict. As aforementioned, because Puerto Ricans are US citizens not bound by visas and other interrogations upon exiting and entering the mainland, they are freer to move back and forth from the island to the mainland. This freedom of course carries with it the consequence of potentially interrupting the family nucleus, which may cause more family conflict.

Because of the cyclical course of family unity, there follows a cycle of stagnation as far as social and communal networks also, which causes instability and tensions that could lead to family conflict. (Oritz, Simmons, and Hinton 1999, Rivera 2008). This could also mean that Puerto Rican persons may not have a stable source of comfort to turn to. It may be a fluctuating source of comfort which is contingent on their physical location and their family relationship at that time.

Again the poor financial situation faced by Puerto Ricans has a negative impact on family conflict. Rivera (2008) asserts that socioeconomic factors are a significant source of family stress for the majority of Puerto Rican families in the US. One sad consequence of the economic pressures faced by many parents is that they are forced to leave their children or adolescents unsupervised after school (Schneider et al 2006) while they complete their shift or go to their second job. This has been found to increase their likelihood for engaging in risky behaviors, which also adds to the tensions that cause family conflicts in the Puerto Rican family. These are individual level problems based on systematic and structural issues which can alter the expression of familismo (Estrada-Martinez et al 2011).
Cubans.

The average Cuban respondent in this sample was approximately 25-34 years old, married with a completed high school degree, making more than 75k and who is bilingual. Cubans in this sample had the most advantageous position among their Latino peers. They have the lowest mean level of perceived discrimination ($M=14.01, S.E. = .47$), highest mean levels of total family cohesion ($M=11.11, S.E. = .08$) and the lowest average of family conflict ($M=6.25, S.E. = .10$). Interestingly, they also had the lowest amount of church attendance and the lowest amount of seeking comfort in religion. These findings cannot be discussed without situating them first within the literature regarding the Cuban immigrant enclave. The Cuban enclave has much to do with the advantageous lifestyle that Cubans experience. Since the NLAAS High-Density (HD) supplemental samples were taken from geographic areas with greater than 5% residential density (http://www.icpsr.umich.edu/icpsrweb/CPES/about_cpes/sample_design.jsp) (ethnic enclaves) for individuals of national origin groups, it is relevant to take a brief look into the development of the Cuban enclave to shed some light on findings.

The immigrant flow which would eventually be the foundations of the Cuban enclave in Miami had political rather than economic roots. Wilson and Portes (1980) include a historical account in their influential article entitled Immigrant Enclaves: An Analysis of the Labor Market Experiences of Cubans in Miami as follows. The first wave of Cuban immigrants came to America at the start of Fidel Castro’s rein in January 1959, as members of the overthrown Batista regime. As the revolutions strengthened, the Cuban authority began to implement a “populist” agenda causing more of the upper class Cuban
to leave such as landowners, managers of US owned enterprises, industrialists etc. and following them were others who came to Miami to organize a military force to overthrow the Castro government. “From mid-1959 to October 1960 approximately 37,000 émigrés came, most of them well to do and many bringing to the United States considerable assets” (Thomas and Huyck 1967 in Wilson and Portes 1980). After the defeat of the exile force in the Bay of Pigs in April 1961 the flow of refugees quickened, characterized by a more diverse composition of Cubans now including both the middle and working classes reaching a total of 661,934 immigrants (U.S. Immigration and Naturalization Service 1977 in Wilson and Portes 1980:303).

These early migration patterns shaped today’s Cuban enclave. The initial immigration of the upper classes paved the way for an ethnic enclave to begin in that the immigrants were able to start small businesses and build a small community with the capital they brought into the country with them. The second wave of middle to lower classes sustained the enclave by providing the labor needed to keep enclave businesses running. The “enclave economy.” (Wilson and Portes 1980) gives newly arrived immigrants an option of economic incorporation otherwise unavailable to other Latino immigrants. The ethnic enclave is comprised of churches, supermarkets, law firms, doctors, dentists, banks, almost everything that anyone could need. It is possible that a person could live their whole life within the enclave and miss nothing as far as social services.

This could contribute to the high economic earnings that characterize most of the Cubans within my sample. Assimilationists would explain this success as follows:
immigrants entered into the enclave economy at the bottom and reproduced a labor process that can be seen in the general economy, working their way up to the middle class. “Internal colonialists” however would argue that irrespective of cultural assimilation Cuban and other “unmeltable” ethnic groups as a whole would never reach and become the new middle-class due to their subjection and exploitation in the labor market which would continue as a precondition for the continued growth of capitalism in the U.S.. Further research is needed to disentangle what which hypothesis (if any) best fits the story of Cubans in America.

Highest family cohesion. Cubans also reported the highest amount of family cohesion among all the Latino ethnicities. This is consistent with past research, although scant, which also asserts that Cubans self-report high family support. (Rivera 2007).

One potential reason could be due to their stable migration patterns. Unlike Puerto Ricans who migrate to and from the Island of Puerto Rico fluidly, Cubans do not transition back and forth as much due to their status as political refugees (Rivera 2008) which undoubtedly fosters stronger family ties.

Lowest perceived discrimination. My results showed that the Cuban population reported the least amount of perceived discrimination. This is consistent with previous findings. (Perez et al. 2008). Becares et. al. (2009) also found that ethnic density had some proven benefits as far as reducing experiences of discrimination. Also, the statistical profile of Hispanics of Cuban origin, based on the Census Bureau’s 2011

2 Gonzalex Casanova (1965), in Mexico, developed the concept of “internal colonialism” which is the exploitation of nonwhite minorities. Robert Blauner (1972) borrowed this concept in exploring the historical role played by the exploitation of minorities in the development of the American economy. (Wilson and Portes 1980)
American Community Survey (ACS) shows that “Cubans are the most geographically concentrated of the 12 largest Hispanic origin groups. 70% live in Florida”3. (PEW: Brown and Patten 2013). Therefore one possible reason could be that Cubans who live in enclaves high ethnic identity which serves as a barrier against perceived discrimination compared to other Latino ethnicities or Latinos with low ethnic identity (Perez et al. 2008).

Another possible explanation is that within the enclave, discrimination is minimal due to the social norms of the community. The social norms hypothesis states that the existence of racism-related social norms in ethnic enclaves reduces the likelihood that a Cuban will experience discrimination because of the enforcement of informal social control over deviant behavior (Sampson et al. 1997) such as discrimination. The social norms model proposes that an increase in ethnic density is associated with an increase in racism-related social norms such as low tolerance against racial discrimination, which in turn translates into informal social control against interpersonal racial harassment (Becares 2009).

Another potential reason could be that many people who live in the enclave begin as a “secondary sector”4 member which has also been is related to lesser reported experiences of discrimination in the U.S. (Wilson and Portes 1980). They offer a possible explanation that “the low positions occupied by secondary sector workers shield them

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3 http://www.pewhispanic.org/2013/06/19/hispanics-of-cuban-origin-in-the-united-states-2011/

4 A member of the “secondary sector” as Wilson and Portes term it, is subject to job instability, 35-40 hour work weeks, low wages (below poverty sometimes) harsh and arbitrary discipline in their jobs and an absence of potential upward mobility.
from confronting barriers in the dominant society which are experienced by immigrants in higher status occupations, especially those in the center economy” (1980:310).

Finally, the buffering effects model (Cohen and Wills 1985) posits that ethnic density will buffer against the detrimental impact of discrimination on psychological distress. Cohen and Wills’ model presented in Figure 2 specifies that social support will buffer a stressful situation from producing poor health by first attenuating or preventing the appraisal of a potentially stressful event as stressful, and second by reducing or eliminating the reaction to the stressor. (Cohen and Willis 1985:312) In the case of Cubans, it is possible that their concentration in the ethnic enclaves is the social support needed to buffer the stress of perceived discrimination, and also provides the resources necessary to reduce the reaction to discrimination such as recognizing and discussing experiences of discrimination with their peers (Cohen and Wills 1985). Future research should focus on the dynamic between discrimination and Cuban enclave living.

Lowest family conflict. My results show that the Cuban sample had the lowest family conflict. There is not very much literature on family conflict within the Cuban population except within the scope of acculturation. For example, Gil and Vega analyze acculturation and acculturative stress among Cuban and Nicaraguan adolescents males and find that “high levels of acculturative stress experienced by parents and adolescents led to negative effects on parent/child relations by increasing the level of cultural conflicts in the family” (p. 453). Similarly Portes and Rumbaut (1996) report that second generation children experience conflict with their parents due to acculturation. W. Lloyd Warner and Leo Strole write in their midcentury benchmark book The Social Systems of
American Ethnic Groups about this and say “even when ethnic parent tries to orient the child to an ethnic past…the child often insists on being more American than Americans” (1945:284). So much of the conflict could be due to acculturation, and since the Cubans have arguably the best framework set in place for those who are trying to move into the U.S., (Rumbaut 1994) acculturation is not as necessary for them as it is for the other Latino ethnicities which leads to little family conflict.

Mexicans

The average Mexican respondent in this sample was approximately 25-34 years old, married with an incomplete high school degree (<11 Yrs.), making on average the lowest income of all their Latino brothers ($15,000-$35,000). In fact they had the highest proportion of adults making less than $15,000 per year. More Mexicans spoke poor English and were mainly Spanish speaking in this sample. Mexicans in this sample had the highest amount of people with less than a high school education compared with all the other Latino ethnicities, and had the highest amount of church attendance and the highest amount of seeking comfort in religion opposite to their Cuban counterparts who ranked the lowest on both of these measures. Irrespective of their tight situation, they also displayed the lowest amount of psychological distress compared to any other Latino Ethnicity in the sample. Why? I interpret this through the lens of religious coping as much of the literature points to religiosity as a major deterrent of psychological distress.

*Highest religiosity.* Consistent with my findings, research shows that high spirituality and frequent church attendance allows Hispanic women to cope with stressors of poverty and remain healthy (Rojas 1996). Another ethnographic study of Latino
women similarly showed that an emphasis on spirituality was an important component to health (Higgins 1999). It has also been found that religion has been found as a coping mechanism for those with adverse health experiences. (Somlai, Heckman, Hackl, Morgan, Welsh 1998). What is it about Mexicans that make them highly religious? Once again a look into the history of Mexicans will inform their present day lives.

The conquest of Mexico by Spain in the 16th century led to hierarchical system of subordination in which Spaniards were at the top, people of Spanish descent, but born in the new world in the middle and natives of Mexico (along with people with mixed heritage) at the bottom (Rodriguez 1994). Mexico was occupied by Spain for three centuries. It was at this time that they were first introduced to Catholic religion when Cortes, the leader of the Spanish conquest, banned human sacrifice upon conquering the empire and sent to the King of Spain to send Friars to convert the indigenous to Christianity (Ricard 1966). Mexico fought for their independence and attained it in 1810. In 1846, however, the Mexican American war broke out with Mexico relinquishing almost half of its territory to the United States. Again, the experience of pain and subordination known to them during the Spanish Conquest was recalled. Mexico finally experienced some stability under the leadership of President José de la Cruz Porfirio Díaz Mori, who served as Mexican president for seven terms (nearly 3 decades) a period known as the Porfiriato in Mexico. Although the Porfiriato did ensure stability, Porfirio did not administer to the nation’s poor which lead to a revolt known as the Mexican Revolution (1910-1920). This trauma riddled history continuously rekindled conditions of subordination encountered in the Spanish Conquest. It is what Rodriguez (1994) calls
the “psychological colonization” of the Mexican population. It is also this history of subordination which has led many Mexicans with nowhere to turn to but their faith in God (Krause and Bastida 2009). This faith was strengthened after the apparition of the Lady of Guadalupe to the Mexican people.

Official Catholic accounts state that on the morning of December 9, 1531 the Virgin Mary appeared to Juan Diego⁵, a Mexican peasant. This apparition has greatly influenced the Mexican people even until today in their loyalty to her and to religion. According to the Vatican accounts “the Virgin Mary told Juan that she had come to give faith and courage to the people of Mexico and that she would ‘remedy all their miseries, pains and sufferings’” (Elizondo, 1980:31 in Krause and Bastida 2009). Importantly, the Virgin Mary spoke to Juan Diego in Nahuatl (the ancient language of the Aztecs) (Fernandez 2007). This apparition occurred at a time when the population of Mexico dropped from 25 million people to merely 1 million due to slavery, disease, and other forms of oppression and suffering (Krause and Bastida 2009). The apparition occurring at the same time as so much death and bloodshed in Mexico made the misery seem transient and served to strengthen the bond between them and her such that even until now, ‘The Lady of Guadalupe’ is central to the Mexican culture. The language, message, context and recipient of the apparition all made Mexicans feel like she belonged to them and they happily adopted her as their patroness. Therefore a discussion of the Mexican people without reference to their devotion to her is incomplete (Rodriguez 1994, Krause and Bastida 2009). With this political and religious history of Mexico We can now

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⁵Juan Diego was canonized in 2002 and his tilma or cloak with the image of Lady of Guadalupe impressed in it is displayed in the Basilica of Our Lady of Guadalupe (www.catholic.org/saints/saint.php?stid=73) the most visited Marian shrine in the world. (www.ewtn.com/library/MARY/ZSHRINE.HTM)
understand better the current day reality. That Mexicans are highly religious has something to do with this previous history of subordination and devotion to St. Mary. Further research is needed to empirically test this hypothesis.

Other Latinos

The average Other Latino respondent in this sample was approximately 25-34 years old, married with an incomplete high school degree (<11 Yrs.), making anywhere from $35,000-$75,000 and who is also bilingual. The correlations for Other Latinos look similar to those for Mexicans, with a couple of exceptions. Unlike Mexicans, but like Puerto Ricans, Other Latinos who reported more discrimination tended to attend church less. Moreover, other Latinos were the only group where the correlations between family cohesion and other variables (distress, church attendance, and comfort in religion) were not significant. Further research needs to uncover why Salvadorians, Dominicans and other understudied Latino populations who report discrimination attend church less or why the family cohesion variable was not correlated with three of the core variables, whereas it was for all the other groups.

Women

The Venn diagram pictured below illustrates the differences between men and women in a nutshell. Latino men generally report higher amounts of discrimination than Latino women. However as the diagram shows, women report higher amounts of psychological distress, family conflict, church attendance, and seeking comfort in religion.
Higher family conflict. I found that women report higher amounts of family conflict. Much of the research accounting for family conflict experienced by women almost always has a discussion of the work-family divide. Work–family conflict is similar to the scarcity and expansion hypotheses in considering multiple roles, however departs from them in the measurement of what each role entails. The scarcity hypothesis equates roles with energy, the expansion hypothesis equates it with obligations vs. privileges. The work-family conflict equates multiple roles with strain or time. In this body of literature, the pressures from the work and family domains are mutually incompatible in some regard (Greenhaus and Beutell 1985), such that involvement in one domain becomes increasingly challenging due to the tugging demands of participation in the other one (Adams, King, and King, 1996; Greenhaus and Beutell, 1985). Because of the many histories that have caused Latinos to come to the US, and various pathways by which they were received, it follows that work–family conflict effects Latinos differently. There are two commonly distinguished forms of the work-family conflict. The first is
called time-based conflict (Greenhaus and Parasuraman, 1994). Time-based conflict is when both domains (home and work) of life are fighting for that precious resource: time. The second is strain-based work–family conflict (Rotondo, Carlson, and Kincaid, 2003). Strain-based conflict occurs when strain or stress experienced in one role domain spills over and interferes with the effective conduct of role performance in the other domain (Greenhaus and Beutell, 1985). Both of these hypotheses could be fair reasons why women experience more family conflict (van Daalen et al. 2006), however further in-depth study is necessary to empirically test which one speaks true to the experience of Latino women, or if there is a third construct at work.

Higher religiosity. The data show that women have higher religiosity than males. This is consistent with previous literature. For example, Jarvis and colleagues (2005) studied the relationship between religious practice and psychological distress in a culturally diverse urban population and found, among other things, that women had higher religiosity than males. They attended church more frequently and they practiced religious rituals (i.e. praying) at home more than men (Jarvis et al. 2005). In regards to church attendance, the literature has suggested two reasons why women may attend church more frequently than men: 1. Social 2. Spiritual. For many women, church services (both spiritual and social), provide a time to get out of the home and away from traditional home maker duties and meet and network with friends and family (Jarvis et al. 2005). The second potential explanation of their increased church attendance and seeking comfort in religion could be that women use religion as a coping mechanism to deal with
the multiple stressors they face daily. With high family conflict and high psychological distress, Latino women turn to God for support.

Men

*Higher perceived discrimination.* Why do men report more discrimination? One reason I mentioned above could be because minority men are more susceptible to negative encounters with social institutions (Nyborg and Curry 2008; Perez et al. 2008). Also, because men generally have to go out to find work, they have more access to the outside world where “social norms” do not bar them from experiencing and perceiving discrimination. So the increased exposure to other different cultures than their own lends itself to more chances of and sensitivity to discrimination. (Perez et al. 2008) It could also be that men have a deep-seated sense of a pride or *machismo* which makes them particularly vulnerable to any hit against their person or their authority such as discrimination. Even in the family therapy literature, Bean, Perry and Bedell (2005) write about how to become a culturally competent marriage and family therapist for Hispanic families and advise that a therapist must respect the father. These authors are not sexists, but rather they are trying to promote cultural awareness. The logic behind this advice is also based on the consideration of machismo, wherein Hispanic families are portrayed as having traditional gender roles and a “patriarchal structure” (Falicov 1998; Ho 1987). In accordance with this guideline, “therapists are encouraged to show respect to the father by meeting with him first, addressing him first in family sessions, being less confrontational with him, and consulting him on treatment decisions (Ho 1987 in Bean et al. 2001:48). All of these guidelines are meant to instruct family therapists on some
Latino family norms and how to be sensitive to them. However, everyday people that come into contact with a Hispanic man will by no means caress his ego as such, but rather will deal with him equally or even worse than the next white man and hence, he perceives discrimination.
CHAPTER FIVE
MULTIPLE REGRESSION RESULTS AND DISCUSSION

Main Effects Models and Hypotheses

Table 21 reports the results of six models of psychological distress, beginning with a model with the control variables and successively adding the effects of everyday discrimination, family-level relations, and religiosity. Model 1 includes the main effects of ethnicity, gender, age, employment status, education, household income, marital status, English speaking ability, and self-perceived socioeconomic status. In Model 2, discrimination is added, to investigate whether discrimination helps explain the variance in psychological distress. Discrimination becomes the main variable with which I study the interactions of how all the other variables effect psychological distress. The following two models incorporate family variables in the model. Model 3 includes family cohesion as a potential buffer against psychological distress and Model 4 included family conflict to study whether it served as a catalyst to psychological distress. The remaining two models deal with religion. Model 5 includes the variable seek comfort in religion, and Model 6 adds church attendance to test if it has a buffering role against psychological distress. The results for each model are reported below along with the main effects hypotheses.
Table 21. Psychological Distress Regressed on Everyday Discrimination, Family-Level Relations, Religiosity and Controls

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Model 1: Controls</th>
<th>Model 2: Discrimination</th>
<th>Model 3: Family Cohesion</th>
<th>Model 4: Family Conflict</th>
<th>Model 5: Comfort in Religion</th>
<th>Model 6: Church Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cuban</td>
<td>0.655</td>
<td>1.273**</td>
<td>1.364***</td>
<td>1.221***</td>
<td>1.252***</td>
<td>0.916*</td>
</tr>
<tr>
<td></td>
<td>(0.444)</td>
<td>(0.375)</td>
<td>(0.364)</td>
<td>(0.338)</td>
<td>(0.334)</td>
<td>(0.432)</td>
</tr>
<tr>
<td>Puerto Rican</td>
<td>1.808***</td>
<td>1.584***</td>
<td>1.585***</td>
<td>1.577***</td>
<td>1.608***</td>
<td>1.429***</td>
</tr>
<tr>
<td></td>
<td>(0.457)</td>
<td>(0.448)</td>
<td>(0.426)</td>
<td>(0.422)</td>
<td>(0.418)</td>
<td>(0.368)</td>
</tr>
<tr>
<td>Other Hispanic</td>
<td>0.743</td>
<td>0.745</td>
<td>0.810</td>
<td>0.732</td>
<td>0.744</td>
<td>0.510</td>
</tr>
<tr>
<td></td>
<td>(0.461)</td>
<td>(0.477)</td>
<td>(0.452)</td>
<td>(0.449)</td>
<td>(0.452)</td>
<td>(0.462)</td>
</tr>
<tr>
<td>Mexican</td>
<td>--a</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Gender: Female</td>
<td>1.409***</td>
<td>1.826***</td>
<td>1.783***</td>
<td>1.383***</td>
<td>1.330***</td>
<td>1.486***</td>
</tr>
<tr>
<td></td>
<td>(0.229)</td>
<td>(0.245)</td>
<td>(0.262)</td>
<td>(0.256)</td>
<td>(0.239)</td>
<td>(0.226)</td>
</tr>
<tr>
<td>Age</td>
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<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>18-24</td>
<td>-0.576</td>
<td>-0.968*</td>
<td>-1.059*</td>
<td>-1.047**</td>
<td>-1.023*</td>
<td>-1.282**</td>
</tr>
<tr>
<td></td>
<td>(0.416)</td>
<td>(0.405)</td>
<td>(0.402)</td>
<td>(0.386)</td>
<td>(0.388)</td>
<td>(0.462)</td>
</tr>
<tr>
<td>25-34</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>35-44</td>
<td>0.166</td>
<td>0.309</td>
<td>0.340</td>
<td>0.337</td>
<td>0.318</td>
<td>0.431</td>
</tr>
<tr>
<td></td>
<td>(0.337)</td>
<td>(0.336)</td>
<td>(0.351)</td>
<td>(0.337)</td>
<td>(0.330)</td>
<td>(0.344)</td>
</tr>
<tr>
<td>45-54</td>
<td>0.316</td>
<td>0.760</td>
<td>0.798</td>
<td>0.811</td>
<td>0.785</td>
<td>0.836</td>
</tr>
<tr>
<td></td>
<td>(0.547)</td>
<td>(0.467)</td>
<td>(0.464)</td>
<td>(0.441)</td>
<td>(0.454)</td>
<td>(0.419)</td>
</tr>
<tr>
<td>55-64</td>
<td>-1.303*</td>
<td>-0.532</td>
<td>-0.547</td>
<td>-0.606</td>
<td>-0.640</td>
<td>-0.479</td>
</tr>
<tr>
<td></td>
<td>(0.546)</td>
<td>(0.553)</td>
<td>(0.547)</td>
<td>(0.539)</td>
<td>(0.536)</td>
<td>(0.547)</td>
</tr>
<tr>
<td>65 and Over</td>
<td>-1.709*</td>
<td>-0.606</td>
<td>-0.567</td>
<td>-0.482</td>
<td>-0.532</td>
<td>-0.305</td>
</tr>
<tr>
<td></td>
<td>(0.836)</td>
<td>(0.824)</td>
<td>(0.804)</td>
<td>(0.763)</td>
<td>(0.763)</td>
<td>(0.754)</td>
</tr>
<tr>
<td>Work Status</td>
<td>Employed</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Unemployed</td>
<td>1.622***</td>
<td>1.331**</td>
<td>1.313**</td>
<td>1.364**</td>
<td>1.368**</td>
</tr>
<tr>
<td></td>
<td>(0.461)</td>
<td>(0.450)</td>
<td>(0.433)</td>
<td>(0.445)</td>
<td>(0.442)</td>
<td>(0.400)</td>
</tr>
<tr>
<td>Not in the Labor Force</td>
<td>2.322***</td>
<td>2.203***</td>
<td>2.216***</td>
<td>2.234***</td>
<td>2.222***</td>
<td>2.287***</td>
</tr>
<tr>
<td></td>
<td>(0.481)</td>
<td>(0.478)</td>
<td>(0.476)</td>
<td>(0.447)</td>
<td>(0.446)</td>
<td>(0.450)</td>
</tr>
<tr>
<td>Education</td>
<td>0-11 Yrs(Some Highschool)</td>
<td>--</td>
<td>--</td>
<td>--</td>
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<td>--</td>
</tr>
<tr>
<td></td>
<td>12 Yrs. (High school)</td>
<td>-0.415</td>
<td>-0.369</td>
<td>-0.400</td>
<td>-0.400</td>
<td>-0.345</td>
</tr>
<tr>
<td></td>
<td>(0.361)</td>
<td>(0.337)</td>
<td>(0.341)</td>
<td>(0.353)</td>
<td>(0.351)</td>
<td>(0.387)</td>
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<tr>
<td>13-15 Yrs. (Some College)</td>
<td>-0.652</td>
<td>-0.802</td>
<td>-0.818</td>
<td>-0.725</td>
<td>-0.734</td>
<td>-0.725</td>
</tr>
<tr>
<td></td>
<td>(0.505)</td>
<td>(0.509)</td>
<td>(0.519)</td>
<td>(0.492)</td>
<td>(0.495)</td>
<td>(0.561)</td>
</tr>
<tr>
<td>≥16 Yrs. (College Grads)</td>
<td>-1.153*</td>
<td>-1.225*</td>
<td>-1.278*</td>
<td>-1.236*</td>
<td>-1.235*</td>
<td>-1.114</td>
</tr>
<tr>
<td></td>
<td>(0.572)</td>
<td>(0.551)</td>
<td>(0.556)</td>
<td>(0.555)</td>
<td>(0.555)</td>
<td>(0.647)</td>
</tr>
<tr>
<td>Income</td>
<td>≤$15,000</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-0.307</td>
<td>-0.315</td>
<td>-0.287</td>
<td>-0.204</td>
<td>-0.214</td>
<td>-0.078</td>
</tr>
<tr>
<td>-------------------------</td>
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<td>--------</td>
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<td>--------</td>
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</tr>
<tr>
<td></td>
<td>(0.543)</td>
<td>(0.538)</td>
<td>(0.538)</td>
<td>(0.553)</td>
<td>(0.553)</td>
<td>(0.558)</td>
</tr>
<tr>
<td>Married</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Divorced/Separated/Widowed</td>
<td>1.288***</td>
<td>0.747</td>
<td>0.742</td>
<td>0.573</td>
<td>0.572</td>
<td>0.720</td>
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<tr>
<td></td>
<td>(0.362)</td>
<td>(0.378)</td>
<td>(0.403)</td>
<td>(0.407)</td>
<td>(0.411)</td>
<td>(0.532)</td>
</tr>
<tr>
<td>Never Married</td>
<td>0.571</td>
<td>0.399</td>
<td>0.345</td>
<td>0.294</td>
<td>0.295</td>
<td>0.655</td>
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<tr>
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<td>(0.349)</td>
<td>(0.374)</td>
<td>(0.350)</td>
<td>(0.343)</td>
<td>(0.429)</td>
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<tr>
<td>Poor English Speaking Skills</td>
<td>-0.677</td>
<td>-0.066</td>
<td>0.012</td>
<td>0.036</td>
<td>0.045</td>
<td>0.018</td>
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<tr>
<td>Self-Perceived Socioeconomic Status</td>
<td>-0.386**</td>
<td>-0.308**</td>
<td>-0.292*</td>
<td>-0.278*</td>
<td>-0.278*</td>
<td>-0.306**</td>
</tr>
<tr>
<td>Total (Sum) of Discrimination Items</td>
<td>0.231***</td>
<td>0.217***</td>
<td>0.166***</td>
<td>0.165***</td>
<td>0.163***</td>
<td></td>
</tr>
<tr>
<td>Family Cohesion</td>
<td>Total (Sum) of Family Cohesion Items</td>
<td>-0.525***</td>
<td>-0.170</td>
<td>-0.176</td>
<td>-0.208</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.149)</td>
<td>(0.154)</td>
<td>(0.154)</td>
<td>(0.153)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Cohesion Squared</td>
<td>-0.084*</td>
<td>-0.082</td>
<td>-0.082</td>
<td>-0.088*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.038)</td>
<td>(0.041)</td>
<td>(0.041)</td>
<td>(0.040)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total (Sum) of Family Conflict Items</td>
<td>0.859***</td>
<td>0.856***</td>
<td>0.787***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.090)</td>
<td>(0.091)</td>
<td>(0.090)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrequently Seek Comfort in Religion</td>
<td>-0.285</td>
<td>-0.439</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.235)</td>
<td>(0.249)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Church Attendance</td>
<td>Never</td>
<td>0.690</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.430)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than Once a week to 3 x/month</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Once a week</td>
<td>-0.301</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.351)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ Once a week</td>
<td>-1.173**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.387)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>10.690***</td>
<td>10.137***</td>
<td>10.341***</td>
<td>10.490***</td>
<td>10.646***</td>
<td>10.545***</td>
</tr>
<tr>
<td></td>
<td>(0.629)</td>
<td>(0.638)</td>
<td>(0.635)</td>
<td>(0.627)</td>
<td>(0.586)</td>
<td>(0.485)</td>
</tr>
<tr>
<td>F Statistic</td>
<td>9.98</td>
<td>13.30</td>
<td>13.47</td>
<td>22.76</td>
<td>20.48</td>
<td>24.61</td>
</tr>
<tr>
<td>p-value</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>
Model 1: Control Variables

Ethnicity. I hypothesized that Puerto Ricans would have the highest amount of psychological distress compared to all other Latino groups. My hypothesis was supported. Compared to Mexicans, Models 1-6 all predict statistically significant, higher levels of psychological distress for Puerto Ricans. In the Model 6, the predicted average distress of Puerto Ricans is 1.4 units higher than for Mexicans. This regression result is consistent with their higher levels of psychological distress in a bivariate context. In addition, I predicted that Cubans would have the least amount of psychological distress compared to all other Latino ethnicities however, my hypothesis was not supported. Compared to Mexicans (omitted category), Cubans report higher levels of distress throughout Models 1-6. In the Model 6, the predicted average distress of Cubans is 0.9 units higher than for Mexicans. Of all the ethnic groups in the regression models, Mexicans have the lowest predicted level of psychological distress, which is consistent with their low level of distress in a bivariate context (see Table 12). The average distress reported by Other Latinos is not different from that of Mexicans

Gender. I hypothesized that women were more likely to report higher levels of psychological distress than men. My prediction was supported. Compared to men, Models 1-6 all predict statistically significant, higher levels of psychological distress for women. In the Model 6, the predicted average distress of women is 1.4 units higher than for men. This regression result is consistent with their higher levels of psychological
distress in a bivariate context (in Table 14), women have a statistically significant higher mean score on psychological distress ($M = 12.77$) than men ($M = 10.72$).

*Age.* I predicted that compared with any other age group, middle-aged adults would be more likely to report the highest level of psychological distress. My hypothesis was supported. In Models 1-6, people aged 45-54 have the highest predicted level of distress. The data reveal that psychological distress starts out low with the younger age groups and then gets higher as people get older but then declines for the people in the oldest age categories. In the Model 6, the predicted average distress of people who are aged 18-24 is a statistically significant 1.2 units lower than for people aged 25-34. So it seems that young people are less distressed.

*Employment status.* Compared to being employed, being either unemployed or out of the labor force significantly increases distress in Models 1-6. In the Model 6, compared to employed people, the predicted average distress of unemployed people is 1.3 units higher and for people out of the labor force, 2.2 units higher. This regression result is consistent with their higher levels of psychological distress in a bivariate context (in Table 7).

*Education.* Overall, for Models 1-6, the more education people report, the lower their predicted distress. However, only the difference between people with less than a high school diploma and people with a college degree or more is statistically significant in Models 1 - 5. In Model 5, compared with having less than a high school degree (0-11 Yrs.), having a college degree or more ($\geq 16$ Yrs.) decreases psychological distress by an average of 1.2 units. The coefficient for a college degree or more becomes statistically
insignificant in Model 6 with the inclusion of church attendance. The relationship of education, church attendance and distress requires further research.

**Income.** In the bivariate model, compared with those who make less than $15,000 per year, those who make more than $15,000 per year have less distress. The bivariate analysis also shows that psychological distress steadily declines as income increases (See Table 7). However the result is not significant when controlling for covariates in Models 1-6.

**Marital status.** In Model 1, the predicted level of distress is significantly higher for divorced, separated, or widowed people than for married people. In Model 1, compared to being married, being divorced, separated or widowed increases distress by 1.2 units, as can also be seen in the bivariate analysis, where divorced/separated/widowed people report the highest levels of distress (See Table 7). In Models 2-6, however, the effect of marital status becomes insignificant with the introduction of the other covariates. Compared to being married, never being married has an insignificant effect on psychological distress throughout the six models.

**Effect of acculturation.** I predicted that higher levels of bilingualism (English and Spanish proficiency) would result in better mental health as compared with proficiency in just one language. My hypothesis was not supported. In Models 1-6, the difference between competent English speakers and poor English speakers is neither large nor statistically significant. So, compared with those who are only Spanish proficient, English proficient Latinos seem to experience the same amount of psychological distress in both the multiple regression models and in the bivariate context.
Self-perceived socioeconomic status relative to the US. I predicted that higher levels of self-perceived socioeconomic status would be associated with less distress. My prediction was supported throughout Models 1-6. The question regarding self-perceived socioeconomic status asks the respondent to look at a ladder with 10 rungs, and rate themselves relative to other people in the United States where people at the top of the ladder are those who have the most money, education, best jobs and oppositely, people at the bottom of the ladder are those who are worst off (less money, education, jobs etc.). Model 6 shows that Latino/as one unit higher on the SPSES variable average .308 units less on the distress scale. This is significant at the p<0.05 level.

The bivariate results show that people who rate themselves as a 1 (or being on rung number 1 compared to the rest of the US) have a statistically significant higher mean score on psychological distress ($M=14.90$) than those who rate themselves as a 10, or being on the highest rung ($M=10.80$) (see Figure 5). It is interesting to note that those who rate themselves as a 9 out of 10 have the lowest mean of psychological distress ($M=9.65$) as compared with any other ranking. This may be that those who rank themselves as 10, experience distress from the responsibilities that come with perceiving oneself as being the top or from any faltering of that self-image. Further research is needed.

Model 2: Discrimination

I hypothesized that higher reported levels of everyday discrimination would be related to increased levels of psychological distress. This hypothesis was supported in Models 2 – 6. In Model 2, people who report one unit higher on discrimination, average
0.23 units more on psychological distress. Adding discrimination in Model 2 almost doubles the R2 from 0.08 to an R2 of 0.14 (p<0.000), which is the largest increase in R2 in all of the models (a 0.06 increase). So in Model 2, approximately 2 percent of the total variance of psychological distress is explained. Also the bivariate analysis reveals that perceived discrimination is significantly associated with increased psychological distress ($\beta = .23, p<0.001$).

**Model 3: Family Cohesion**

I predicted that there would be a curvilinear relationship between family cohesion and psychological distress, with moderate family cohesion showing the lowest level of psychological distress as compared to those who are from either highly disengaged or highly enmeshed families (Olson 2000). Consequently, I added both a linear and quadratic terms for cohesion in Model 3. The introduction of family cohesion to the model slightly improves the goodness-of-fit, as the R$^2$ goes from 0.14 to 0.15. Approximately 2.25% of the total variance of psychological distress is explained.

To see the combined effect of the linear and quadratic terms for the cohesion variable, I calculate the predicted distress for some typical values for the cohesion variable using the coefficients from the model. I do this for every consecutive value of family cohesion from 1-12, however at around value 8, I start to see a turndown effect so I calculate the distress output for every .1 increment of cohesion in order to pinpoint exactly where the graph turns down. I find that the predicted distress steadily increases from values of 1-8 for cohesion, but then turns down at a value of about 8.1 for family cohesion and continues to steadily decrease thereafter. Figure 8 illustrates clearly the
turndown effect. My hypothesis, therefore was not wholly supported. Although there is a curvilinear relationship it is in the opposite direction of what I expected such that at low values of family cohesion (disengaged family structures) more family cohesion increases distress, however, at moderate to high levels of cohesion, increased cohesion decreases distress. Importantly, the relationship becomes insignificant in Models 4-6 when additional covariates are added to the model. Given this finding, the family cohesion theory of Olson’s Circumplex Model does not hold true within Latino community.

Figure 8. Psychological Distress over Family Cohesion

\[ y = -0.084x^2 + 1.303x \]

Model 4: Family Conflict

I predicted that higher levels of family conflict would be related to higher levels of psychological distress. My hypothesis was confirmed. Family conflict significantly increases distress in Models 4-6. In Model 4, a one unit difference in family conflict is associated with an average of .86 units more on psychological distress (p<0.001). As for the goodness-of-fit, the introduction of family conflict to the model increases the \( R^2 \) from
0.15 to 0.19 such that about 3.6% of the total variance of psychological distress is explained.

**Model 5: Seek Comfort in Religion**

I hypothesized that turning to religion in times of hardship would be associated with lower levels of psychological distress. This hypothesis was not supported. In Models 5-6, infrequently seeking comfort in religion variable has a negative coefficient, but it is not statistically significant.

**Model 6: Church Attendance**

I predicted that higher frequency of attending church services would be associated with lower levels of psychological distress. This hypothesis was supported in Model 6. Respondents who attend church more than once a week have a significantly decreased amount of psychological distress ($\beta = -1.173$, SE= 0.387, p<0.01) compared with those respondents who attend church less than once a month or 1-3 times per month. Said another way, compared to attending church less than once per month, attending church more than once per week decreases distress by an average of about 1.173 units. Compared to Model 5, the $R^2$ for the model remains constant at 0.20.

**Interaction Models Addressing Central Themes**

I test a series of interaction models, by successively adding different interaction terms to the final main effects model reported above in Table 21. Psychological Distress Regressed on Everyday Discrimination, Family-Level Relations, Religiosity and Controls. I test interactions of discrimination with the key variables in this study (ethnicity, gender, family cohesion, family conflict, comfort in religion, and church
attendance). The coefficients from these models are reported in Appendices 1 to 6. Since the main effect coefficients does not change significantly across these models, in the following section I only discuss coefficients from interactions that had statistically significant effects.

*Discrimination by ethnicity.* I did not hypothesize in particular about interactions between ethnicity and discrimination, however, racial disaggregation was in fact one of the central themes of this work. As I have completed much of the work, I have find that disaggregating by ethnicity seems to be less important that I thought it would be. In the interaction model I find that there is a slightly significant interaction (p= 0.079) between being Puerto Rican and discrimination that decreases psychological distress (β= -0.08). However, this interaction is marginal and the other two interaction terms for Cubans and other Latinos are insignificant. Moreover, the overall omnibus test is insignificant (F [3, 51] = 1.22, Prob. > F = 0.311).

*Discrimination by gender.* Although I did not formulate any hypotheses regarding the interaction between discrimination and gender, bringing forward the plight of Latina women is one of the primary purposes of this work. As such I conduct some exploratory research about the gender divide when it comes to discrimination and distress. I run the regression with an interaction of gender and discrimination and find the interaction to be insignificant by the default t-tests in Stata¹. However, the adjusted Wald test does show that the interaction is significant (F [26, 53] = 49.95, Prob. > F = 0.000). When I apply

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¹ Default svy commands use t statistics with n – L degrees of freedom to test the significance of coefficients, where n is the total number of sampled PSUs (clusters) and L is the number of strata in the first stage.
the Bonferroni method the interaction between sex and discrimination drops to insignificance (F [df = 53] = 2.41, df = 1, Bonferroni-adjusted p-value =0.127). However, the Bonferroni method is quite conservative according to many scholars and so, I investigate further. I plot the interaction between gender and discrimination on distress and find that the two regression lines are not parallel and that the slope for females is slightly steeper than the slope for males.

Figure 9. Psychological Distress over Discrimination, by Gender

I let perceived discrimination vary between 0 and 60 in increments of 5. So at a discrimination score of 25 the predicted distress for females is 14.279, and for males is 12.150. The difference between males and females is 2.129. So when perceived discrimination is 25, females score 2 points higher on the psychological distress scale than males. I obtain these differences for all values of discrimination and graph these differences for visual confirmation.
Figure 10. Average Marginal Effects of Gender on Psychological Distress as a Function of Discrimination

Figure 10 shows that the difference in estimated distress between males and females increases gradually as discrimination increases. At a discrimination score of 10, the difference is about 1.75. At a discrimination score of 30, the difference is about 2. The differences between male and female is significant for values of discrimination ranging from 10-50 (inclusive). For discrimination values less than 10 and greater than 50 the male/female difference is not significant.
Figure 11 shows that females have a higher rate of change of experiencing psychological distress at an average score of perceived discrimination (14.144) as well as 1 standard deviation above (20.943). For the value of perceived discrimination which is 1 standard deviation below (7.344) the mean, the confidence intervals for both males and females overlap. The slope coefficient is higher for women than men. Again, we can see that at greater amounts of discrimination there is a higher rate of change for women than there is for men.

Discrimination x gender x ethnicity. In order to explore the intersection of ethnicity and gender on the regression of discrimination on distress, I plot the simple slopes of each combination.
It seems that the slope of psychological distress on discrimination is flattest in the Puerto Rican-male cell and most sharply inclined in the Cuban-female cell. So I test the differences in the slope to know for sure. I can confirm that Cuban female does have the highest slope ($\beta=0.248$), and Puerto Rican male has the lowest slope ($\beta=0.099$). I combine all the simple slopes together in one graph to compare them.
It is clearly seen that Puerto Rican women (the Navy Blue line) have the highest estimated linear prediction of psychological distress, although they begin at a lower amount of estimated psychological distress at the onset, and yet increase more rapidly as discrimination increases. Mexican men (the lavender line) have the lowest estimated prediction of psychological distress. There seems to be a few significant interactions. Pairwise comparisons indicate that there are three significant contrasts between the groups. Mexican men are significantly different than Puerto Rican men and women, and Mexican women are significantly different than Puerto Rican women. (See Table 22)
Table 22. Pairwise Comparison between Ethnic Groups and Gender with Bonferroni Adjustment

<table>
<thead>
<tr>
<th>Ethnicity # SEX</th>
<th>Contrast</th>
<th>Linearized S.E.</th>
<th>Bonferroni t</th>
<th>Bonferroni p-value</th>
<th>Bonferroni [Confidence Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexican ♂ vs. Puerto Rican ♂</td>
<td>-2.928</td>
<td>0.867</td>
<td>-3.38</td>
<td>0.038</td>
<td>[-5.779, 0.077]</td>
</tr>
<tr>
<td>Mexican ♂ vs. Puerto Rican ♀</td>
<td>-3.479</td>
<td>0.984</td>
<td>-3.53</td>
<td>0.024</td>
<td>[-6.717, 0.240]</td>
</tr>
<tr>
<td>Mexican ♀ vs. Puerto Rican ♀</td>
<td>-2.928</td>
<td>0.867</td>
<td>-3.38</td>
<td>0.038</td>
<td>[-5.779, 0.077]</td>
</tr>
</tbody>
</table>

Note. ♀=Female, ♂=Male

Discrimination by family cohesion. I hypothesized that family cohesion would moderate the relation between perceived everyday discrimination and psychological distress. This hypothesis is not supported in the regression. The interaction between family cohesion and discrimination as it effects psychological distress is not significant for either the family cohesion variable (β= -0.070, p= 0.396) nor the quadratic family cohesion variable (β=0.003, p=0.482). However when I performed the overall omnibus test, it showed that the interaction is significant. (F [27, 53] = 46.30, Prob. > F = 0.000). So I did some post hoc analysis and found that the effect of discrimination on distress does differ by amount of family cohesion but only at certain values. The marginal effects table shows that family cohesion is significant at certain ranges of perceived discrimination. This was an interesting finding but still unclear so I plot it. The formula for this plot basically computes the slope for distress on various values of discrimination while holding the value of the moderator variable family cohesion constant at different values ranging from 0-12. Essentially the plot shows the amount of change in psychological distress with a 5-unit interval change in discrimination while holding
family cohesion constant at different values. (i.e., the values are simple slope intercepts).

We can see that there is an interaction between family cohesion and discrimination.

Figure 14. Predictive Margins of Psychological Distress as a Function of Discrimination and Family Cohesion

It seems that Latinos with no family cohesion have a lower level of predicted distress than those with high family cohesion at the onset, however as the amount of discrimination increases, those who have no family cohesion have a sharper response to perceived discrimination than those who have a high amount of family cohesion. Said otherwise, those who have a high level of family cohesion do have a higher level of predicted psychological distress at the onset than those who have less amounts of cohesion, however in the face of discrimination as a prominent stressor, those with high amount of family cohesion are buffered against the negative effects of discrimination compared with those who have little to no family cohesion. Simply, family cohesion serves as a moderator against discrimination for those who have high a degree of family cohesion at the start.
**Discrimination by family conflict.** I hypothesized that the interaction of perceived everyday discrimination and family conflict would increase psychological distress. This hypothesis does not seem to be supported. The results show that the interaction of discrimination and family conflict is not significant and hence does not increases amounts of psychological distress (β = 0.015, S.E. = 0.010, p = 0.154). However when I perform the adjusted Wald test, it does show that the interaction term was significant (F[26, 53] = 41.25, Prob. > F = 0.000). In order to dig deeper into these conflicting results, I use the coefficients from the interaction model to calculate the predicted marginal mean of discrimination. First, I compute the simple slope for distress on discrimination while holding the value of the moderator variable, family conflict constant at values running from 0 to 15. I find that the effect of discrimination on distress does differ by amount of family conflict but only at certain values. The marginal effects table shows that the amount of change in psychological distress with a one unit change in discrimination, holding family conflict constant at different values ranging from 1-15 is significant at values above 4 on the family conflict scale. This must be why the interaction coefficient in the regression model is insignificant, however the significance did slightly manifest in the omnibus test. As such the pairwise comparisons are performed. This predicted marginal mean is plotted in order to illustrate the interaction effect between the dependent and outcome variable psychological distress. I use three values of discrimination (1 standard deviation below the mean, at the mean, and 1 standard deviation above the mean) in order to graph the pending moderation according to the suggestion of Aiken and West (1991). Also, because family conflict is rendered
continuous, I also use the mean ± one standard deviation for the values of family conflict to picture the trend. What I can tell from Figure 15 is that discrimination and distress are positively related such that as one increases, the other does also. Also, people with lower levels of family conflict also have lower amounts of predicted psychological distress as opposed to those with higher levels of family conflict.

If there were no interaction effect, then the three lines would be parallel indicating that as discrimination increases, distress increases at the same rate for low, medium and high conflict families. However, in my graph, the lines are not quite parallel. The line for high conflict families is a bit steeper and the line for low conflict families is a bit more flat which means that discrimination increases distress at a higher rate among high conflict families compared to low conflict families. However, the difference is very slight.

Figure 15. Predictive Margins of Psychological Distress as a Function of Discrimination and Family Conflict
Discrimination by seek comfort in religion. I predicted that the relationship between discrimination and distress would be moderated by seeking comfort in religion during times of trouble. This hypothesis is not supported as the interaction term does not prove to be significant ($\beta=-0.070$, S.E. = 0.046, p= 0.136). The adjusted Wald test, however, does show that the interaction was significant (F [26, 53] = 37.07, Prob. > F = 0.000). When I calculated the Wald test using the Bonferroni adjustment the interaction was again shown to be insignificant. (Bonferroni adjusted p=0.131)

Discrimination by church attendance. I hypothesized that the relationship between discrimination and distress would be moderated by church attendance. This hypothesis is marginally supported in the interaction model (p=0.055). Moreover, the overall omnibus test for the interaction is significant (F [25, 53] = 42.52, Prob. > F = 0.000). Therefore I can be confident that the interaction term is significant but pairwise comparison is necessary to uncover the details and to be able to make some predictions. When I look at the marginal effects, it seems that the slopes are similar except for the slope of attend church more than once a week. I plot it to get a visual representation of the situation. So I can see clearly from the graph below that the slope of more than once a week stands out among the rest.
But I have to see if always attending church was significantly different slope than the other 3. So I test this and find that the difference in slope between attending church more than once a week vs. attending church less than 1x/mo. - 1-3x/mo. is marginally significant ($p>\chi^2=0.065$). The difference in slopes between attending church more than once a week vs. attending church about once a week is also significant ($p>\chi^2=0.023$). Looking at the slopes I wonder where the differences between groups are statistically significant. I chose less than 1x/mo. - 1-3x/mo as the reference group because of the large size of the group, and checked where the values for the other groups were different and then the same. The first block of results, compares those who never attend church with those who attend church less than 1x/mo. - 1-3x/mo. It shows that the comparison between them is significant for values of discrimination less than 20. The second block compares those who attend church about once a week with those who attend church less
than 1x/mo. - 1-3x/mo. This shows that the comparisons are not significant for any value of discrimination. The third block compares those who attend church more than once a week with those who attend church less than 1x/mo. - 1-3x/mo. This shows that the contrast is significant for discrimination values greater than 10. So if an individual attends church more than once a week, this will buffer the effect of discrimination on predicted distress at higher levels of discrimination (at least 10) I graph these results for a visual confirmation to reaffirm my interpretation of the margins results.

Figure 17. Average Marginal Effects of Church Attendance on Psychological Distress as a Function of Discrimination
CHAPTER SIX

DISCUSSION

This study examined the role of family conflict, family cohesion and religion on the relationship between discrimination and psychological distress among Latinos.

Importantly, the present study puts discrimination at the center of all analyses, therefore acknowledging the real effects of discrimination and bringing back the notion that lived discrimination is not impartial, but rather it continues to victimize minorities at different social locations and takes its toll on mental health in terms of psychological distress. This study situates the study of the effects of discrimination within the stress literature, and addresses the stress buffering models within the Latino population using the NLAAS.

This study brings to the forefront the different experiences of Latinos of varying ethnicities and genders. Moreover, this is the first study to test Olson’s hypothesis that the relationship between family cohesion and psychological distress is curvilinear among the Latino population using the NLAAS dataset. With that brief summary in place, I put the findings from the final multiple regression model in the context of the literature, and offer some explanations of these findings.

Control Variables

Ethnicity

The final multiple regression model shows that of the four ethnicities of Latinos, Puerto Ricans report the highest amount of psychological distress, even when many other
variables are controlled. This is consistent with much of the prior literature which points to an overall poor state of mental health and a relatively extreme level of depression among the Puerto Rican population. Preliminary analyses of the Hispanic Health and Nutrition Examination Survey (HHANES) data by Mosicki et al. (1987) point the prevalence of major depressive episodes among Puerto Ricans to be substantially higher than the corresponding incidence among persons in the general population, and particularly higher than among Mexican and Cuban Americans. Likewise, Potter et al (1995) conducted a study of depression among Puerto Ricans in New York with the HHANES and found that the Puerto Rican community has similar risk factors as other Latino communities, however the excessive level of depression was not explainable. It is important to remember that depressive symptomatology is part of psychological distress.

There are several plausible reason to explain this trend. It is possible that Puerto Ricans experience such high levels of poor mental health by way of depressive symptomatology, and in particular non-specific general psychological distress due to the disparity in what is expected of them according to their citizenship vs. what their lived experience is like. As a people who are considered to be a fully integrated “Americans,” they are expected to live the “American Dream” like the rest of the Americans, however the stark reality of their lives do not align with the dream world. This discrepancy maybe a source of psychological distress.

Furthermore, there may be a difference in reference point. To whom do Puerto Rican’s compare themselves? Do they compare themselves to the rest of the American society or do they compare themselves to their community. It is possible that because of
their citizenship, they compare themselves to the rest of the US and potentially feel inadequate. Further research is necessary.

Model 6 shows that Cubans average slightly less distress than Mexicans when other variables are controlled, and that other Latinos are not different from Mexicans when other variables are controlled.

*Gender*

Model 6 shows that even when many other variables are controlled, women report higher levels of psychological distress than men. This is not an unexpected finding; a gender difference in psychological wellbeing has been established as a pattern in the literature (Mirowsky and Ross 2012). ‘Early Life Events’ research argued that women are more vulnerable than men to the emotional effects of life events (Kessler, Mcleod and Wethington 1985). So the gender difference in vulnerability accounts for much of the overall relationship between sex and distress. (Dohrenwent 1973; Uhlenhuth, Lipman, Balter and Stern 1974; Kessler 1979; Radloff and Rae 1981). Other research found that it is not that women are more vulnerable per se, but that women are overly strained due to their multiple roles (Goode 1960; Slater 1963; Coser 1974; Marks 1977). This hypothesis was termed the scarcity hypothesis which states that individuals have a limited amount of energy which can and will run out when overly exerted. The second premise of the hypothesis is that companies are greedy and want all of a person’s allegiance making it difficult to have multiple roles. So for women who have multiple roles as mother, wife, and paid worker, role strain and the ensuing distress is expected and “normal.”
This is also a premise of Arlie Hochschild’s book *The Second Shift*. In her book she says that women bear the brunt of the “stalled revolution” that got wives out of the home and into the first shift of paid employment but resulted in very little change during the domestic second shift. (Hochschild 1989). The wife bears all of the stressors of the labor market as does her partner, if not more (workplace discrimination, the glass ceiling effect etc.) but is still ultimately responsible for keeping the house and raising the children. According to Hochschild’s research, women’s work is still devalued as merely a job while the husbands work is a career. This contributes to her continuing responsibility for the second shift.

There is however a competing hypothesis which was advanced by Gove and Tudor (1973) called the expansion hypothesis which says that multiple role involvement actually enhances well-being. This hypothesis emphasizes the privileges rather than the obligations that multiple roles provide (Marks 1977; Sieber 1974). Thoits (1983) conducted research which supported this hypothesis. It showed that there was a positive association between number of roles a person (man or woman) had and psychological well-being. In my sample of Latino women I find that married women who are employed experience lower amounts of distress ($M=11.799$) than married women who are either unemployed ($M =13.727$) or not in the labor force ($M =13.769$). So it seems that Latino women’s experience fits better within the framework of the expansion hypothesis in that they experience more advantages from their multiple roles rather than disadvantages manifested through lower psychological distress for employed women. This could be because they are still new to America so working is still perceived as a freedom they are
enjoying, rather than a burden they are bearing. Of course these are preliminary findings and thoughts, however further empirical work should focus on Latino women in their juggling of the second shift and how it affects them.

**Age**

Model 6 shows that the youngest age group has lower distress than the comparison age group (25-34) when controlling for other variables. And also old people are less distressed than the reference category (although their coefficients are not significant). It seems that distress begins low, gets higher as people are older and then declines for the oldest people. This is not consistent with the literature. Mirowsky and Ross (2012) find that in compiling two decades of research the emerging pattern is that “young adults are more anxious and depressed, middle aged people are the least depressed, but older people are the least anxious” (p.10). My results depart from this “established pattern.” Why? Possibly due to the ethnic sample I am looking at? There is little research on how age, discrimination and psychological distress vary over the lifespan within the Latino population.

Borrowing from the life-course theorists, it is reasonable to assume that Latinos also experience changes in social roles as they age (Almeida and Horn, 2004; Kessler, Mickelson, and Walters, 2004; Wethington, Kessler, and Pixley, 2004) but these social roles may be shaped by different pressures and delineated at different ages. For example, the established finding in the literature is that young adults experience more anxiety and depression. However, young Latino adults do not reflect this pattern in this data.
The literature also finds that middle age is associated with the least amount of depression, however in the Latino context midlife adults may be dealing with multiple stressors such as discrimination and Latino immigrants may also be dealing with stressors unique to their own immigration experience. As they carry the burden of “daily stressors” (Almeida and Horn 2004) or bear the brunt of changing multiple arenas of life (Lachman and James 1997) such as changes in their social world (loss of social networks), physical world (relocation to a new country) and work world (leave what you did back home and start from scratch in the US) among other daily stressors like paying a mortgages, child rearing etc. So, although the midlife period has been portrayed as the “prime of life” (Baruch 1984; Costa et al. 1986; Mitchell and Helson 1990), it is more of a time of “crisis” (Levinson 1978; Valliant 1977) for the Latino population. In a nutshell, middle age is hard to cope with (Almeida and Horn 2004) for the Latino population.

The literature further states that older people are less anxious. There seems to be similar pattern within my sample as well. Finally towards the end of one’s lifespan, the daily stressors that were related to midlife begin to decline and for many elders they begin to find a bit more free time as they retire from their careers, and ideally take some time to relax. This is not to say that elderly do not have their own slew of problems (health, financial etc), but because they do not have as many roles as they did in their midlife season, they are not as strained. Another potential reason could be that older adults may report less psychological distress particularly in response to discrimination as

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1 This trajectory speaks to the middle class. However, it is possible that the lower classes have a different trajectory where the life seasons are characterized by differing features and are delineated at different ages. A discussion of class is beyond the scope of this section, but it should nonetheless be noted as much of the Latino population does not necessarily fall in the middle class.
they have developed more effective coping strategies over time (Almeida and Horn 2004; Yip et al 2008, Torres and Ong 2010)

Employment Status

Model 6 shows that both being unemployed and/or out of the labor force significantly increases distress compared to being employed. The effect is largest for those who are out of the labor force. This is consistent with the literature which shows likewise (Bjarnason and Sigurdardottir 2003). Research has shown that unemployed people experience social, psychological, and physical problems (Bjorklund and Eriksson 1998; Dooley, Catalano and Wilson 1994; Perry 1996; Smari et al. 1997). Specifically, unemployed adults and youth suffer from depression, anxiety, low self-esteem (Fryer 1997; Banks and Jackson 1982; Dooley and Prause 1995; Hammer 1993; Hammarstrom and Janniert 1997; Hanan, O’Rian and Whelan 1997). Youth are also found to engage in self destructive behavior related to psychological distress when unemployed such as heavy smoking, illicit substance abuse, (Gunnlaugsson and Galliher, 2000; Hammarstrom, 1994; Hammer, 1992; Julkunen and Carle, 1998; Olafsson and Svensson, 1986) and an elevated mortality rate caused by suicide and accidents (Hammarstrom,1994; Jin et al., 1997; Morrell, Taylor, Quine, Kerr, and Western, 1999).

This could be because economic hardship and material deprivation which habitually afflict the unemployed person has direct, negative effects on their psychological well-being (Grossi, 1999; Vinokur, Price, and Caplan, 1996; Rantakeisu, Starrin, and Hagquist, 1999; Whelan, 1993, 1994).
Moreover, this economic strain resulting from the unemployment may also indirectly increase psychological distress by progressively breaking down the social support networks and structures that employment sustained (Atkinson, Liem, and Liem, 1986; Kong, Perrucci, and Perrucci, 1993; Vinokur et al., 1996).

Education

Models 1 to 5 show that Latinos with a college degree average less psychological distress than Latinos with less than a high school diploma. This finding is consistent with the literature which also finds that higher education improves health outcomes (Williams et al. 1997; Araya et al. 2003; Chevalier and Feinstein 2006; Sironi 2012). Education has also been shown to be associated with better health and greater longevity (Cutler et al. 2006, 2008) and a reduction in the transition to depression (Chevalier and Feinstein 2006).

Why could this be within the context of Latino mental health? One potential reason could be that enhancing knowledge and skills enables people to adopt healthier lifestyles (less tobacco and alcohol consumption) and make more coherent choices about their health (Sironi 2012). Furthermore, higher levels of education have been found to be associated with improved psychosocial aptitude and a greater ability to cope with stress. (Lant et al 2005; Ross and Wu 1995; Schnittker and McLeod 2005). A final practical mechanism by which education affects mental health is that it improves problem-solving abilities which results in increasing the possibility to access information about new medical technologies (Grossman 1972; 2000; 2005; Smith 2007).
One interesting finding that deviates from the literature is that the coefficient for a college degree or more becomes statistically insignificant in Model 6 with the inclusion of church attendance. Further investigation is needed to understand how these variables are interrelated.

**Income**

The bivariate analysis showed that psychological distress declines as income increases (See Table 7), however this relationship becomes insignificant in my regression models when controlling for covariates. Although there is some inconsistency in the literature as to the influence of SES on distress, my findings can be situated within the body of research which finds that SES has no effect on depression or psychological distress (Mirowsky and Ross 1980; Golding and Karno 1988; Moscicki et al. 1989; Araya et al. 2003: Breslau et al. 2006; Gavin et al. 2010).

One potential reason could be because for the immigrant community, income is not as important as image. It may be that a person has a low income and education but is esteemed highly in their community or even in his or her own eyes, as is measured by the self-perceived socioeconomic status variable. (Gong , Xu and Takeuchi 2011)

This is especially true in the Latino population where there is so much more complexity one needs to account for than just the amount of money in the bank, bearing on a person’s psychological distress (Gavin et al. 2010). In fact, when segregating income by ethnicity, I found that Mexicans, who make the lowest income, actually have the least amount of psychological distress. Clearly, there are other, more important factors at hand. It seems to me, that as long as the income one gains is enough to cover basic necessities
(adequate food, shelter, clothing), then anything above and beyond that does not have much bearing on the happiness one enjoys or the psychological distress one experiences. This has elsewhere been called the threshold effect which states that the SES gradient in health is characterized by a threshold which predicts a weakening of the association between SES and health (Marmot 2004; Morales et al. 2002) For instance, Yu and Williams (1999) found large reductions in the risk of psychiatric disorders such as anxiety and affective disorders associated with increases from low levels of income, however, after approximately $70,000 the effect becomes non-significant. Xu (2011) also considers the threshold effect for Latinos SES where he studies at what point the effect of income on psychological distress is no longer significant; he finds that only the highest level of income protects Cubans from being distressed. For Mexicans, the income is not associated with psychological distress, and Puerto Ricans who have low, mid and high income have a lower level of psychological distress than those who make less than $15,000. So Xu’s findings were mixed and do not point to any one direction.

The threshold effect is contrary to an economic understanding of the association of income and happiness which declares that more money can buy more happiness, however I think that further in depth, empirical and longitudinal research testing the threshold hypothesis within the Latino population holding for all of the covariates that inform their lives would find this hypothesis to be true. Future research could build on Xu’s research to address this.
Marital Status

Being divorced, separated or widowed increases distress when no other variables are being controlled, however in my regression Models 2-6, the effect of marital status on psychological distress becomes insignificant with the introduction of the other covariates. This is a surprising finding. Most of the research has found that marriage offers protective effects on health and mental health outcomes (Markey et al. 2005; Mirowsky and Ross 2012). Compared to single people, married people have shown better outcomes on physical health related indicators, such as ulcers, cardiovascular functioning, overall self-reported health etc., (Kiecolt and Glaser and Newton 2001; Markey et al. 2005), as well as psychological health. Research shows that married people enjoy lower rates of depression, have a higher life satisfaction, lower levels of stress and less cognitive decline in old age compared to unmarried couples (Waite and Gallaghr 2001; Williams 2003). The only study that focuses on Latinos and supports my findings that I am aware of is Perrrino et al (2009) whom examined the correlates of depression among an older population of low-income Cubans in Miami. They also find that there was no relationship between marital status and levels of depression.

Why is marital status not an issue in my sample? One possible reason related to the quality of the marital relationship. If a person is married is weak indicator of mental health and particularly psychological distress. There is an underlying assumption that if a person is married then they are happy, otherwise they would have dissolved their marital bond. However, this is not always the case in Latino families where children, economics, immigration processes such as citizenship paperwork, religious beliefs and other family
pressures may keep families together irrespective of the quality of their marriage. So although marital status is a good proxy for marital happiness, a more appropriate measure would consist of a scale which measures marital satisfaction. This of course does not account for the total variation in my sample. It could be that there are very happily married couples, however other stressors muffle the joy of marriage or the stress caused from divorce or separation (acculturative stress, financial strain, discrimination, etc).

In the case of divorce, it has been an established finding that divorce is associated with psychological distress. In my sample as well, divorce is associated with the highest levels of distress in the bivariate analysis. Surely, during the period of time following a divorce there is an insurmountable amount of emotional and psychological distress and pain over what was and what went wrong and how to adjust to the new social network disruptions incurred from the marital dissolution. (Kalmijn and Van Groenou 2005). At such a time it is hard to look past the divorce or feel like one can ever live a normal happy life again. However, as with many things, time heals. Research supporting this model studies how psychological adjustments shift and suggests that the acute stress caused by the divorce may be alleviated with the passage of time (Stroschein et al. 2005). Eventually, a divorce which one endured some time earlier, is no longer the chief cause of one’s distress but rather the myriad of other problems. For this to be major theory contributing to my findings, my population would have to be mainly older (to account for the time elapsed from divorce to the time they took the survey), or also divorce would have to occur younger. In my sample I found that the average age of people who are divorced/separated/widowed is about 50 years old and not even a quarter of my sample
population falls into this category (M = 22.4%). The majority of the respondents have not reached 50 years old (71.3% of the respondents is anywhere from 18-44 years old). So, this cannot be the only hypothesis explaining why marital status does not have an effect in my population. Further research is needed to explain why marital status does not have any effect on psychological distress contrary to the rest of the literature.

**Acculturation**

My results showed that higher levels of bilingualism did not have any effect on psychological distress. Compared with those who are only Spanish proficient, English proficient Latinos seem to experience the same amount of psychological distress. This is not consistent with the literature which places so much emphasis on acculturation and its role in mental health within ethnic communities. Why the discrepancy? As aforementioned, acculturation is a process defined as “the acquisition of the cultural elements of the dominant society” (Lara, Gamboa, Kahramanian, Morales and Bautistia, 2005: p.369) such as values and behaviors and cultural norms. Since acculturation is not a tangible process, researchers often rely on English language proficiency as a proxy to measure integration to American culture (Blank and Torrechila, 1998). However it has not been the established proxy of acculturation within all literature so that comparisons can be made across articles or findings. One article uses English language proficiency to measure acculturation, whereas another article will use age of arrival into the US, and still another will use language of the interview. So the measurement of acculturation is not standardized. This could be the reason behind the discrepancy.
Even if measures were standardized, some have criticized this measure of acculturation as being too uni-dimensional and not really tapping into the processes at work in the course of acculturation. As we can see, language proficiency did not have any bearing on the psychological distress of the respondents in this sample. As a way to address this, the concept of enculturation was introduced in the literature where the process of preserving the native cultural norms of the group was tested for (Kim and Ominzo 2006) alongside the acculturation process. The idea is that acculturation and enculturation occur jointly, they are not mutually exclusive categories. The construct of enculturation asserts that we cannot assume that as one becomes “more American” they become “less Latino”. As Janet Murguia, president and CEO of The National Council of La Raza\(^2\) says: “It is no contradiction for Hispanics to value both English and Spanish or to be deeply proud of their countries of origin yet also fiercely patriotic to the U.S.” (http://www.pewhispanic.org/2012/05/31/janet-murguia-diverse-identities-but-much-common-ground/).

This concept of acculturation and enculturation occurring simultaneously sounds promising, however when I tested the construct of enculturation empirically, using a scale composed of ethnic identity constructs, it did not hold up as having a role on psychological distress, nor on moderating the relationship between discrimination and distress. As such, I dropped it from the model. Past research has found it to be promising and future research should also deconstruct both constructs to better understand them and to understand the Latino health paradox discussed above.

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\(^2\) Founded in 1968, The National Council of La Raza is the largest national Hispanic civil rights and advocacy organization in the United States.
Model 6 shows that higher levels of self-perceived socioeconomic status are associated with less psychological distress. This is consistent with the emerging body of research which finds that perceived SES is associated with health (Adler et al. 2000; Gianaros et al. 2007; Goodman et al. 2003; Leu et al. 208; Operario et al. 2004; Singh Manou et al. 2003; 2005).

Scholars have explained the link between self-perceived SES and health in two ways. The first looks to the stress buffering model for an explanation. Research has shown that low perceptions of SES may either directly increase stress or indirectly increase stress by increasing one's susceptibility to stress. In the indirect relationship, low SES activates stress response systems which in turn affect mental health. (Adler et al 2000; Gianaros et al. 2007; Gong 2011). Second, self-perceived SES is a summary measure which accounts for a number of variations in one's social standing which are generally left out of surveys and objective measures of SES (Cohen et al. 2008).

An example from the Cubans will serve as an appropriate illustration of self-perceived socioeconomic status. The Cuban Refugee Program (CRP) was established by the Kennedy administration under the secretary of Health, Education and Welfare to deal with the massive flow of Cuban immigrants. The CRP concentrated on relocating the Cuban immigrants as they entered to different parts of the US in the hopes to relieve the strain on the economy in Miami at the time. “Cuban lawyers were transformed into language teachers and sent to high schools and colleges in the North…to insure that
relocation proceeded smoothly, the center made emergency welfare aid contingent on acceptance of job offers when available.” (Wilson and Portes 1980:303).

A Cuban lawyer sent to teach high school may rate himself quite high up on the ladder of SPSES, even though his “objective” status in the United States is middling. This “feeling” is not accessible by traditional SES measures but only with the self-perceived SES measure. Among all the Latino ethnicities, Cubans do have the highest average score of self-perceived socio-economic status. ($M$=5.682).

As a side note, the bivariate analysis showed that those who rate themselves as a 9 out of 10 in social rank have the lowest mean of psychological distress ($M$=9.65). This is an unexpected result. One would imagine that those who are at rung number 10 would have the lowest amount of distress as they have the highest self-perceived socioeconomic status. Those who rank themselves as 10 may experience distress from the responsibilities that come with perceiving oneself as being at the top or from any faltering of that self-image. Further research could uncover this nuanced result.

**Discrimination**

The question of whether there is a positive association between discrimination and psychological distress was confirmed in the bivariate analysis ($\beta = .23$, $p<0.001$), the main effects model also shows that discrimination significantly increases psychological distress throughout Models 1-6 even after controlling for all variables in the model. And finally in my pairwise comparisons I also found that perceptions of discrimination and psychological distress are significantly, positively correlated ($\beta = 0.207$, $p<0.001$).
This significant result contributes to the growing body of literature that supports the positive association between discrimination and distress. For example, Millburn et al. 2010 found that controlling for ethnicity, immigration status, gender and age, young adults who had a history ridden with racial/ethnic discrimination encounters experienced more emotional distress. Kessler and colleagues (1999), also find that perceived discrimination contributes to higher psychological distress particularly among socially disadvantaged groups. William et al. (2008) found approximately 20 studies which confirmed the finding that a positive association between psychological distress and discrimination exists. And in general, much research has demonstrated that the experience of being treated unfairly is associated with reduced mental health (Barnes et al. 2004; Noh et al. 1999; Williams et al.1997; Brondolo et al. 2009; Ong, Fuller-Rowell and Burrow 2009; Torres and Ong 2010; Hwang and Goto 2008; Szalacha et al. 2003, Moradi and Risco 2006; Alderete et al 1999; Finch et al 2000; Flores et al. 2008).

Brondolo and colleagues (2011) takes this one step further and argues that discrimination is not just another social stressor added to the heap of stressors oppressing minority individuals, but rather a pathogen, or a disease-producing agent that actually generates depression among minorities.

The pressing question is why? What are the mechanisms that link the two together? There is not a shortage of studies to confirm that an association does exist, but there are only a handful of studies which explore the moderators, mediators and pathways by which discrimination adversely effects mental health, and particularly psychological distress. At the core of these studies, researchers have found that minorities are more
distressed when they routinely encounter unfair treatment on account of their unalterable traits such as their ethnicity. This stress accumulates over time and triggers psychological responses which adversely affect mental health (Molina 2012; Williams et al. 1994). Some theorists have posited that discrimination conveys to people of color that they lack significance, a sense that can eventually be internalized which again elicits adverse mental health affects (Portes and Rumbaut, 2001; Suarez-Orozco, 2001; Harrell, 2000; Williams et al. 1994). Portes and Rumbaut (1996) also assert that discrimination could contribute to the confinement of certain ethnic minorities to low wage menial labor and even to exclusion from the labor market which also has an impact of psychological distress.

**Family Conflict**

I predicted that higher levels of family conflict would be related to higher levels of psychological distress. My hypothesis was confirmed. Family conflict is indeed an important determinant of psychological distress. Some amount of family conflict can be expected, but too much family conflict has been shown to have negative effects on both adults and youth (Marsiglia et al 2010). I further hypothesized that the interaction of perceived everyday discrimination and family conflict would be associated with higher levels of psychological distress but it was not. There was, however, a strong correlation between discrimination and family conflict. As perceived discrimination increases, family conflict likewise escalates or vice versa.

The literature confirms that a lack of family support could also contribute to an increased amount of experienced psychological distress, (Riviera et al. 2008) a greater
risk of panic disorders, (Oppenheimer and Frey 1993) anxiety disorder, (Priest and Denton 2012) and more social anxiety (Peleg-popko 2002). This is not an unanticipated finding as family conflict is considered a stressor which directly effects mental health.

Much of the literature has cited the process of acculturation as the main reason for family conflict in Latino families. For example, the linguistic gap between parents and children (whom are acculturating at varying paces) aggravates conflict between them (Szapocznik and Williams 2000). Moreover, the acculturation process can put strain on husbands and wives who spend long periods away from one another in the transition to America. These immigration configurations often create separation of the family and later restructuring of family ties when the family is reunited. The reunification of the family member who was absent can create tension and strain analogous to that of a stepparent integrating into a new family (Suarez-Orozco, Todorova and Louie 2002; Rivera 2008).

Even when families are able to move together to the U.S., the disruption of the social networks caused from the relocation (Pilisuk and Hillier Parks 1986) places the onus of companionship and support on the few immediate family members. This makes family cohesion and togetherness more of a burden than a pleasure as family members may not be able to meet the multiple needs for support (Sluzki 1979). Moreover, financial strains may force women to work outside of the home, which “rocks the boat” of gender norms, potentially causing family conflict (Pedraza 1991). Future research could focus on how to ease the acculturation process so as to ease family conflict.
Family Cohesion

_Familismo_ has been defined as “feelings of loyalty, reciporicy and solidarity toward members of the family, as well as to the notion of the family as an extension of self” (Fitzpatrick 1971; Sabogal Marin, Otero-Sabogal, Marin and Perez Stable 1987). I asked, does family cohesion prove to be overbearing in certain contexts producing more psychological distress. I predicted that there would be a curvilinear relationship between family cohesion and psychological distress, and my hypothesis was partially supported.

Family cohesion or _familismo_ and mental health has been understudied within the Latino context which is an unexpected gap in the literature. There have been studies about how family cohesion has been associated with lower stress (Hovey and King 1996, Salgado de Snyder 1987) less alcohol consumption (Marsiglia, Kulis Parsai, Villar, and Garcia 2010) and fewer behavioral problems (Marsiglia Parsai and Kulis 2009), however, only a handful of studies focus on the relationship between Latino family cohesion and mental health. And of the studies who have theorized about these relationships in the Latino community, none (to my knowledge) has tested for a curvilinear relationship between family cohesion and psychological distress.

The studies pertaining to family cohesion and mental health find that family cohesion is linearly related to better mental health. Rivera (2008) finds that more family cohesion is associated with less psychological distress for the aggregate sample of Latinos; however, he did find different patterns within each ethnicity. He also discussed the Circumplex model but did not empirically test it.
Jacob Priest and Wayne Denton (2012) also looked at the role of family cohesion and family discord on anxiety disorders. They found that family cohesion is associated with two anxiety disorders: Generalized Anxiety Disorder (GAD) and Panic disorder.

I hypothesized that there would be a curvilinear relationship between family cohesion and psychological distress. My hypothesis was partially supported in that I did find a curvilinear relationship, but in the opposite direction that what was expected. Why doesn’t my data agree with Olson’s Circumplex model? It could be that Olson’s model was based on a less diverse population. Perhaps, the typical white family was at the crux of the development of his model, and so it does not apply families outside of that cultural context. For instance, in the Latino family, where family ties, ethnic identity, ethnic pride, and community orientation are so strong (Hovey and King 1996, Rivera 2008), the relationship is found to be opposite of what Olson suggests. As family cohesion increases distress also increases until a point (particularly 8.1) at which point more family cohesion actually turns out to decrease psychological distress. It could be that the respondents who rate their family cohesion from 0-8 are not really “enmeshed” in their own families. They may be judging their family togetherness as overbearing, rather than uplifting. And so it naturally follows that distress would increase as family cohesion increases, but after a certain point (8.1 on the family cohesion scale) something happens to individuals such that they no longer perceive their families as overbearing but rather as a tool for support. Something that helps them face the world and all the trials it has to offer. Why the turndown effect occurs at approximately 8 is not explainable with this information. However, further research is needed.
I further hypothesized that family cohesion would moderate the relation between perceived everyday discrimination and psychological distress. However my hypothesis was not supported. This is consistent with the literature. For example, Ayon et al. (2010) in their study regarding *familismo* and internalizing symptoms of mental health among Latino families, hypothesized that high levels of *familismo* would reduce the harmful effects of discrimination on mental health, however they also found no interaction effect.

**Religion**

The effect of religious practice on mental health of the immigrant populations has remained largely unexplored (Jarvis et al. 2005). It has been found that spiritual support can enhance positive evaluations of and adaptations to traumatic events (Miller 1995) consistent with the stress buffering model which posits support (in this case spiritual support) serves as a moderator variable between stress and health.

What I refer to as religiosity has been elsewhere referred to as religious coping. It has been defined as the “use of cognitive or behavioral strategies based on religious beliefs or practices” such as praying, attending church or seeking comfort/ strength from God (Abraido-Lanza, Vasquez, and Echeverria, 2004: 91). My results have shown that higher frequency of attending church services was associated with lower levels of psychological distress. This is consistent with much literature which also finds this association to be true.

Jarvis et al (2005), among others (Williams, Larson, Buckler, Heckman, and Pyle, 1991; Levin et al., 1996; Koenig et al., 2001) found that attendance at religious
services was associated with decreased psychological distress. And reporting no religious affiliation was significantly associated with distress (p. 664).


Religiosity has been associated with physical health (lower blood pressure, better immune functioning) (Willard 1990) and research data has even suggested that the effects of living in broken down slums and poverty stricken neighborhoods are offset for elderly people who rely on religious coping strategies (Krause 1998).

Why does religiosity offer such “protection” against physical, psychological and emotional distress within the Latino community? One explanation could be that religious attendance is a sort of support factor for new immigrants. Religious institutions offer comfort to Latino immigrants at a critical time when they first come to America and help ease that transition. Churches serve as the link between immigrants to US communities while remaining connected to cultural values and norms (Levitt 1998; Menjivar 1999; Alegria et a. 2007)

Further, I hypothesized that the relationship between discrimination and distress would be positively moderated by church attendance. This hypothesis was marginally supported in the interaction model (p=0.055). Post Hoc analysis revealed that surprisingly, people who go to church every Sunday are no different than those who
almost never go at all. But people who frequented the church more than once per week did report less distress in the face of discrimination. Is it safe to interpret these findings as such: it is not enough to just go to church on Sunday? That rather, you need to be highly committed for church attendance to make a difference and reflect positively in your mental health. Church attendance seems to have conditional effects on mental health. If a person is an avid church goer, this will buffer the effect of discrimination on predicted distress at higher levels of discrimination (when the discrimination scores is at least 10). Another potential explanation could be that as one attends church they become more engaged with other believers, and see them more frequently. As such, they are able to prayer with others about their experiences and find comfort in their church community as a sort of support network.

Further research should focus on the relationship between religion, discrimination and psychological distress, as well as other mental health outcomes -- especially within the Latino context, who are a relatively religious people and who also bear the burden of many daily life stressors.
CHAPTER SEVEN

CONCLUSION

With these results, I can both confirm some established findings and draw some novel conclusions. For example, I confirmed that discrimination is significantly associated with psychological distress. In fact, the single discrimination variable accounted for more variance in distress than any other block of variables, except for the controls. This is not a new discovery; however, by highlighting the relationship between discrimination and psychological distress we are given the tools to challenge discrimination and the consequent bondage to poor mental health -- barriers that keep humankind apart. This chapter presents a summary of findings, a statement of limitations, and implications for the future.

Summary of Findings

I will briefly summarize some of the main results that surfaced. The first is the role of family cohesion. There was a gap in the literature about the relationship between family cohesion and psychological distress within the Latino context. Rivera et al. (2008) tackles family cohesion within the Latino context and find that family cohesion is associated with lower psychological distress, however they do not include the dimension of discrimination. I build on their findings by first confirming that family cohesion does decrease psychological distress even when I account for discrimination.
Moreover, I tested Olson’s Circumplex Model with the Latino context. The central tenet of OCM is that balanced levels of cohesion and adaptability are the most favorable for optimal family functioning. I have found the opposite. At the average level of family cohesion psychological distress was the greatest, and slowly declined as family cohesion increased. Apparently, within the context of Latino families, an enmeshed family protects Latinos from psychological distress. This is surprising, and we must consider why this finding departs from Olson’s model. It is plausible that the disparity is due to the minority status of the population. However, it is important to recognize that when I add family conflict in the model the effect of family cohesion is no longer statistically significant. Consequently, it could also be that the pattern does not reflect the lack of family cohesion but perhaps the stress of family conflict.

Second, I found that increased levels of family conflict increase the level of psychological distress; in fact, adding the single variable of family conflict to the model increased the explained variance in distress more than any other block of variables (other than the control variables and the discrimination variable.) However, contrary to my hypothesis, family conflict does not have any moderating effect on the relationship between discrimination and psychological distress.

Third, my study was one of the few studies to focus on relationship between discrimination, religion and mental health within the Latino community. I found that church attendance more than once a week significantly decreases psychological distress in the Latino population. In terms of “seeking comfort in religion,” people who
infrequently seek comfort tend to be less distressed, although the relationship is not quite statistically significant.

Limitations

Notwithstanding some of the important contributions this study makes to the literature, there are some important limitations to consider. First, determining causality is not possible because the data are cross sectional. For example, either seeking comfort in religion increases distress, or those who are already highly distressed seek comfort in religion, such that when data are analyzed, one cannot assume which causes the other. Future longitudinal studies on Latinos could help to determine causality.

Also, some of the measures utilized in the study were possibly inaccurate proxies for the constructs being deliberated. For example, acculturation was measured with one variable --speaking English-- but how can only one variable address the essence of the whole process that acculturation speaks to? It cannot. It would be helpful if future studies could identify and standardize the best measures of acculturation.

Also, as other scholars, I used a “subjective measure” of everyday discrimination rather than an “objective measure.” This means that discrimination is subject to how one interprets it which leads to discrepancy in the reported prevalence of discrimination. However, studies on the subject of discrimination show that personal assessment of discrimination and their mental impact are similar to objective discriminatory acts (Kessler 1999; Williams neighbors and Jackson 2003; Ruggerio and Tayor 1995).

There were also a few limitations in variables available in the dataset. For example, the family cohesion variable did not measure childhood experience with family cohesion,
which informs their current experience of their own families. This surely has an impact and should be further investigated. Furthermore, surveying parents about how cohesive their families are may not be a truly accurate depiction of the whole family dynamic and cannot represent the feelings of the whole family either. It is likely that the children’s perceptions may differ from their parent’s perceptions. Moreover, there was a lack of an immigrant status variable in the data, which could have provided important insights.

Second, the family constructs (cohesion and conflict) are both important scales with good internal consistency, but they are missing an important component--children. How can one determine family conflict or cohesion without grappling the presence of children in the home? Mirowsky and Ross have documented a couple of new patterns emerging in the social science literature which they published in the newest edition of their book *Social Causes of Psychological Distress*. They found an association of the presence of children in the home with psychological distress (2012). Most parents love their children, they claim, but this does not mean that parents with children are less distressed on account of that love. The authors note that, “love may make the burden worth carrying. It does not make the burden light.” (Mirowsky and Ross 2012:11). On the other hand, others find that having children in the household was actually associated with lower levels of psychology distress among US-born Latinas (Molina 2013). That my study did not address the presence of children in the home is a great limitation.

This brings me to another limitation of the dataset; the exclusion of youth and children. Of course, no one study can address all research questions; however future datasets of this caliber should focus on the experience of youth and children. Study on
children and youth of Latino immigrant families is just as important if not more important since they “hold the keys to the social and economic future of America” (Vallejo 2012).

Finally, religion was only analyzed using two questions. I do not think those two questions are able to get at the essence of religion or ones relationship with God. Church attendance and seeking comfort in religion are surely important factors, however, a future study should focus on the various facets of religion (religion as a lifestyle, grace, mercy, judgment, meaningfulness, values, joy, suffering etc.). Once again, this was a limitation I could not address as further information about religion was not available with the NLAAS dataset. The limitations in the available data is a common frustration in conducting secondary data analysis.

Nonetheless, this is an important work in the study of Latino mental health. To understand the correlates of mental health within the Latino context is of critical importance since the population of Latinos is increasing exponentially. Family, religion and discrimination are highly influential constructs that make up the lived experiences of the Latino population, making it a serious matter to continue to unearth and delve deeper into the knowledge surrounding these relationships.

**Implications**

…Latinos hold the keys to America’s social and economic future. If we care at all about our fate, we must enact public policies that help to integrate America’s fastest growing ethnic group, rather than those that exclude and stigmatize Latinos as un-American.- Jody Agius Vallejo (http://www.pewhispanic.org/2012/06/08/jody-agius-vallejo-Latino-ethnicity-and-americas-future)

Each variable discussed above is a plausible factor in social patterns of psychological distress. Each captures some of the truth…” (Mirowsky and Ross [1989]
But what is the one explanation that ties all of the sources of distress together? Ross and Mirowsky argue that control is the central concept that affects psychological distress. However, I disagree.

As I have conducted my research I have come to believe that although psychological distress is a problem it is not the problem, but rather a symptom of the problem. I believe that the one thread that connects all the variables together is a sense of meaningfulness. Family cohesion reduces psychological distress because family belonging increases the sense of meaning in life. “Positive effects of these family statuses on psychological well-being were mediated by the sense of meaning.” (Mirowsky and Ross [1989] 2012:222). Religion reduced the amount of psychological distress people experienced because religion gives people meaning in their life--a purpose to life, a hope for the future, and a belief in the eternal. I hazard to say that we can attribute many of the findings to this underlying construct: meaningfulness. In my perspective, the underlying theme, the underlying construct of all the variables I studied is meaningfulness. Further research to operationalize and test this hypothesis would be very beneficial.

The results presented above raise perhaps more questions than they answer, still, the long-term mental health consequences of the social conditions mentioned suggests the significance of the topic and the need for additional research in this area and among the Latino as well as other minority populations.
APPENDIX A

INTERACTION TABLES OF

DISCRIMINATION BY CORE VARIABLES
Table 23. Psychological Distress Regressed on Interactions between Everyday Discrimination and Ethnicity

<table>
<thead>
<tr>
<th>Model 5: Discrimination x Ethnicity</th>
<th>Total (Sum) of Family Cohesion Items</th>
<th>Family Cohesion Squared</th>
<th>Total (Sum) of Family Conflict Items</th>
<th>Church Attendance</th>
<th>Infrequently Seek Comfort in Religion</th>
<th>Female</th>
<th>Age</th>
<th>Work Status</th>
<th>Education</th>
<th>Income</th>
<th>Marital Status</th>
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<td>Infrequently Seek Comfort in Religion</td>
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<td>Poor English Speaking Skills</td>
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<td>(0.421)</td>
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<tr>
<td>Cuban</td>
<td>0.922*</td>
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<td>Puerto Rican</td>
<td>1.577***</td>
<td>(0.395)</td>
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<tr>
<td>All Other Hispanic</td>
<td>0.567</td>
<td>(0.438)</td>
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<tr>
<td>Discrimination x Cuban</td>
<td>-0.041</td>
<td>(0.042)</td>
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<tr>
<td>Discrimination x Puerto Rican</td>
<td>-0.082</td>
<td>(0.044)</td>
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<tr>
<td>Discrimination x All Other Hispanic</td>
<td>-0.072</td>
<td>(0.056)</td>
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<tr>
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<td>(0.514)</td>
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<tr>
<td>R-Squared</td>
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</table>

* p<0.05; ** p<0.01; *** p<0.001
Coefficients represent unstandardized values
Significance levels are derived from Wald tests
(Standard Error)
### Table 24. Psychological Distress Regressed on Interactions between Everyday Discrimination and Gender

<table>
<thead>
<tr>
<th>Model 8: Discrimination x Gender</th>
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</table>
| **Total (Sum) of Family Cohesion Items** | -0.212  
|  
| **Family Cohesion Squared** | -0.090*  
|  
| **Total (Sum) of Family Conflict Items** | 0.775***  
|  
| **Church Attendance** |  
| Never | 0.700  
|  
| Once a week | -0.336  
|  
| ≥ Once a week | -1.178**  
|  
| **Infrequently Seek Comfort in Religion** | -0.457  
|  
| **Ethnicity** |  
| Cuban | 0.933*  
|  
| Puerto Rican | 1.416***  
|  
| All Other Hispanic | 0.530  
|  
| **Age** |  
| 18-24 | -1.277**  
|  
| 35-44 | 0.419  
|  
| 45-54 | 0.838  
|  
| 55-64 | -0.472  
|  
| 65 and Over | -0.280  
|  
| **Work Status** |  
| Unemployed | 1.284**  
|  
| Not in the Labor Force | 2.298***  
|  
| **Education** |  
| 12 Yrs. (High school) | -0.344  
|  
| 13-15 Yrs. (Some College) | -0.728  
|  
| ≥16 Yrs. (College Graduate) | -1.138  
|  
| **Income** |  
| $15,000-$34,999 | -0.067  
|  
| $35,000-$74,999 | -0.194  
|  
| ≥$75,000 | -0.086  
<p>|<br />
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|</p>
<table>
<thead>
<tr>
<th>Marital Status</th>
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<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Divorced/Separated/Widowed</td>
<td>0.726</td>
<td>(0.539)</td>
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<tr>
<td>Never Married</td>
<td>0.663</td>
<td>(0.435)</td>
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<th>Coefficient</th>
<th>Standard Error</th>
</tr>
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<td>0.031</td>
<td>(0.500)</td>
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<th>Coefficient</th>
<th>Standard Error</th>
</tr>
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<td>-0.309**</td>
<td>(0.110)</td>
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<thead>
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<th>Coefficient</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Total (Sum) of Discrimination Items</td>
<td>0.143***</td>
<td>(0.021)</td>
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<td>Female</td>
<td>1.458***</td>
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<th>Discrimination x Female</th>
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<td>(0.483)</td>
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<th>Standard Error</th>
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<td>p-value</td>
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<th>R-Squared</th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-Squared</td>
<td>0.20</td>
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* p<0.05; ** p<0.01; *** p<0.001

Coefficients represent unstandardized values except for enculturation
Significance levels are derived from Wald tests (SE)
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<thead>
<tr>
<th>Interaction Model 2: Discrimination x Family Cohesion</th>
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<td><strong>Total(Sum) of Family Conflict Items</strong></td>
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<td><strong>Church Attendance</strong></td>
</tr>
<tr>
<td>Never</td>
</tr>
<tr>
<td>Once a week</td>
</tr>
<tr>
<td>≥ Once a week</td>
</tr>
<tr>
<td><strong>Infrequently Seek Comfort in Religion</strong></td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
</tr>
<tr>
<td>Cuban</td>
</tr>
<tr>
<td>Puerto Rican</td>
</tr>
<tr>
<td>All Other Hispanic</td>
</tr>
<tr>
<td><strong>Female</strong></td>
</tr>
<tr>
<td><strong>Age</strong></td>
</tr>
<tr>
<td>18-24</td>
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<td>35-44</td>
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<td>45-54</td>
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<td>55-64</td>
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<td>65 and Over</td>
</tr>
<tr>
<td><strong>Work Status</strong></td>
</tr>
<tr>
<td>Unemployed</td>
</tr>
<tr>
<td>Not in the Labor Force</td>
</tr>
<tr>
<td><strong>Education</strong></td>
</tr>
<tr>
<td>12 Yrs. (High school)</td>
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<tr>
<td>13-15 Yrs. (Some College)</td>
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<tr>
<td>≥16 Yrs. (College Graduate)</td>
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<tr>
<td>$15,000-$34,999</td>
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* p<0.05; ** p<0.01; *** p<0.001

Coefficients represent unstandardized values
Significance levels are derived from Wald tests
(SE)
Table 26. Psychological Distress Regressed on Interactions between Everyday Discrimination and Family Conflict

<table>
<thead>
<tr>
<th>Interaction Model 1: Discrimination x Family Conflict</th>
<th>Total (Sum) of Family Cohesion Items</th>
<th>Family Cohesion Squared</th>
<th>Church Attendance</th>
<th>Infrequently Seek Comfort in Religion</th>
<th>Ethnicity</th>
<th>Female</th>
<th>Age</th>
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Table 27. Psychological Distress Regressed on Interactions between Everyday Discrimination and Seeking Comfort in Religion

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<td>Total (Sum) of Family Cohesion Items</td>
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<td>Family Cohesion Squared</td>
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<tr>
<td>Total (Sum) of Family Conflict Items</td>
</tr>
<tr>
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</tr>
<tr>
<td>Church Attendance</td>
</tr>
<tr>
<td>Never</td>
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<tr>
<td></td>
</tr>
<tr>
<td>Once a week</td>
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<tr>
<td></td>
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<tr>
<td>≥ Once a week</td>
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<tr>
<td>Ethnicity</td>
</tr>
<tr>
<td>Cuban</td>
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<tr>
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</tr>
<tr>
<td>Puerto Rican</td>
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<tr>
<td></td>
</tr>
<tr>
<td>All Other Hispanic</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Female</td>
</tr>
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</tr>
<tr>
<td>Age</td>
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* p<0.05; ** p<0.01; *** p<0.001
Coefficients represent unstandardized values
Significance levels are derived from Wald tests (SE)
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<th>Age Group</th>
<th>Coefficient</th>
<th>Standard Error</th>
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<td>18-24</td>
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<td>35-44</td>
<td>0.469</td>
<td>(0.328)</td>
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<tr>
<td>45-54</td>
<td>0.846</td>
<td>(0.426)</td>
</tr>
<tr>
<td>55-64</td>
<td>-0.506</td>
<td>(0.538)</td>
</tr>
<tr>
<td>65 and Over</td>
<td>-0.450</td>
<td>(0.758)</td>
</tr>
</tbody>
</table>

**Work Status**
- Unemployed: 1.347** (0.408)
- Not in the Labor Force: 2.299*** (0.450)

**Education**
- 12 Yrs. (High school): -0.342 (0.379)
- 13-15 Yrs. (Some College): -0.679 (0.560)
- ≥16 Yrs. (College Graduate): -1.102 (0.637)

**Income**
- $15,000-$34,999: -0.055 (0.554)
- $35,000-$74,999: -0.174 (0.390)
- ≥$75,000: -0.077 (0.649)

**Marital Status**
- Divorced/Separated/Widowed: 0.723 (0.523)
- Never Married: -0.662 (0.442)

**Poor English Speaking Skills**
- 0.009 (0.497)

**Self-Perceived Socioeconomic Status**
- -0.305** (0.109)

**Total (Sum) of Discrimination Items**
- 0.126*** (0.030)

**Infrequently Seek Comfort in Religion**
- -0.498* (0.236)

**Discrimination x Infrequently Seek Comfort in Religion**
- 0.080 (0.047)

**Constant**
- 10.563*** (0.483)

**F Statistic**
- 31.16

**p-value**
- 0.000

**R-Squared**
- 0.20

* *p<0.05; ** p<0.01; *** p<0.001

Coefficients represent unstandardized values
Significance levels are derived from Wald tests (SE)
Table 28. Psychological Distress Regressed on Interactions between Everyday Discrimination and Church Attendance

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<td><strong>Family Cohesion Squared</strong></td>
<td>-0.089* (0.041)</td>
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<td><strong>Total (Sum) of Family Conflict Items</strong></td>
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<td><strong>Infrequently Seek Comfort in Religion</strong></td>
<td>-0.450 (0.253)</td>
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<td><strong>Ethnicity</strong></td>
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<tr>
<td>Cuban</td>
<td>0.941* (0.423)</td>
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<td>Puerto Rican</td>
<td>1.420*** (0.364)</td>
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<td>All Other Hispanic</td>
<td>0.483 (0.469)</td>
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<td><strong>Female</strong></td>
<td>1.480*** (0.232)</td>
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<tr>
<td>18-24</td>
<td>-1.297** (0.449)</td>
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<td>35-44</td>
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<td>45-54</td>
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<td>55-64</td>
<td>-0.456 (0.562)</td>
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<tr>
<td>13-15 Yrs. (Some College)</td>
<td>-0.747 (0.554)</td>
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<td>≥16 Yrs. (College Graduate)</td>
<td>-1.152 (0.627)</td>
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<td>$15,000-$34,999</td>
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<td>$35,000-$74,999</td>
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<td>≥$75,000</td>
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<td>Self-Perceived Socioeconomic Status</td>
<td>-0.298**</td>
</tr>
<tr>
<td>Total (Sum) of Discrimination Items</td>
<td>0.192***</td>
</tr>
<tr>
<td>Church Attendance</td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>0.755</td>
</tr>
<tr>
<td>Once a week</td>
<td>-0.291</td>
</tr>
<tr>
<td>≥ Once a week</td>
<td>-1.143**</td>
</tr>
<tr>
<td>Discrimination x Never Attending Church</td>
<td>-0.048</td>
</tr>
<tr>
<td>Discrimination x Once a week</td>
<td>0.017</td>
</tr>
<tr>
<td>Discrimination x ≥ Once a week</td>
<td>-0.155</td>
</tr>
<tr>
<td>Constant</td>
<td>10.525***</td>
</tr>
<tr>
<td>F Statistic</td>
<td>44.91</td>
</tr>
<tr>
<td>p-value</td>
<td>0.152</td>
</tr>
<tr>
<td>R-Squared</td>
<td>0.20</td>
</tr>
</tbody>
</table>

* p<0.05; ** p<0.01; *** p<0.001

Coefficients represent unstandardized values
Significance levels are derived from Wald tests (SE)
APPENDIX B

GRAPHS ILLUSTRATING DISTRESS

BY DEMOGRAPHIC CHARACTERISTICS
Figure 18. Weighted Mean of Psychological Distress by Gender

Figure 19. Weighted Mean of Psychological Distress by Gender and Ethnicity
**Age**

Figure 20. Weighted Means of Psychological Distress over Age

[Bar chart showing the weighted mean of psychological distress over different age groups: 18-24, 25-34, 35-44, 45-54, 55-64, 65 & over. The values range from 10.7957 to 13.3324.]

**Work Status**

Figure 21. Weighted Mean of Psychological Distress by Employment Status

[Bar chart showing the weighted mean of psychological distress by employment status: Employed, Unemployed, Not in Labor Force. The values range from 10.7957 to 13.3324.]
**Years of Education**

Figure 22. Weighted Mean of Psychological Distress over Age

![Bar chart showing the weighted mean of psychological distress over age groups.](image)

**Income**

Figure 23. Psychological Distress over Income

![Bar chart showing psychological distress over income levels.](image)
**Marital Status**

Figure 24. Weighted Mean of Psychological Distress over Marital Status

![Bar chart showing the weighted mean of psychological distress over marital status. The x-axis represents marital status categories (Married/Cohabiting, Divorced/Separated/Widowed, Never Married), and the y-axis represents mean psychological distress scores. The bars show the following scores: 11.2 for Married/Cohabiting, 13.2844 for Divorced/Separated/Widowed, and 12.1909 for Never Married.]

**Speak (Acculturation Proxy)**

Figure 25. Weighted Mean of Psychological Distress over English Proficiency

![Bar chart showing the weighted mean of psychological distress over English proficiency. The x-axis represents proficiency levels (Poor, Well), and the y-axis represents mean psychological distress scores. The bars show the following scores: 11.6584 for Poor, and 11.7831 for Well.]
Figure 26. Weighted Mean of Psychological Distress over SPSES

Figure 27. Weighted Mean of Discrimination over Age
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VITA

Lydia Billatos, was born in Pullman, Washington. She advanced quickly through high school completing the four year course load within three years. She began her college career at the University of Texas-Austin by the age of 16. She transferred to the University of Texas –Dallas (UTD) where she earned a Bachelor of Arts in Crime and Justice Studies with a minor in Psychology in 2003, at the age of 19. During her time at UTD she served as the Vice President of Alpha Phi Sigma National Criminal Justice Honor Society.

Three months later she left for the University of Manchester - United Kingdom where she received a Master of Arts in Sociology in 2004. After she completed her MA, she took a break from academia for two years to work as an academic admissions advisor for the American Intercontinental University-Study Abroad Program, only to return to academics in 2006 at Loyola University of Chicago (LUC) to pursue her Ph.D. in sociology.

While at Loyola, she served as the treasurer for Loyola’s Graduate Students of Color Alliance for one term; she also was a member of the Graduate Scholars Program and a member of the Graduate Association of Sociologists. Also, during her time at Loyola, she was awarded a Community and Global Stewards Fellowship in the amount of $3,000 in support of her research in discrimination and racial inequality in America from
the LUC Graduate School. Furthermore, she taught two classes at Concordia University – Chicago (Criminology and Social Deviance).

In 2008 she moved to Montreal, Canada where she completed an honors statistics class at McGill University to fulfill her degree requirements at Loyola University Chicago, and was introduced to the NLAAS dataset which she would eventually use for her dissertation research. During this time she wrote her manuscript entitled, *How does Family and Social Support Moderate the Effects of Discrimination on Mental Health across Latino Subethnicities?* which was accepted for presentation at the IOSSBR conference in Atlantic City (April 2012). After this class, she traveled to Kenya to work internationally for social justice. She and her husband established a center for street children in Nairobi Kenya called RAHA Kids with the Coptic Orthodox Church, which is now thriving and serving over 100 children every day. In fact, she was nominated for the *Social Responsibility and Volunteer of the Year Award* (2012) from the University of Manchester Alumni Association for her work with the street children in Kenya. While working to establish RAHA Kids in Kenya, she was also a research associate at the University of Nairobi during which time she wrote her manuscript entitled, *The Kenyan Family Through a Gendered Lens*, which was accepted for presentation at the International Organization of Social Sciences and Behavioral Research (IOSSBR) Conference in Las Vegas (Nov 2011). As such, much of her previous work and experience in the family, discrimination, religion and the NLAAS dataset, brought her to write her dissertation on mental health, discrimination, family and religion within the Latino community, which she hopes to use to teach and nurture young minds.