

A Multiple-Group Path Analysis of the Role of Social Marginality on Self-Rated Physical  
Health among U.S. Latina/o Adults: An Intersectional Perspective

by

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I do not compartmentalize my personal and professional lives: I personalize the world I research and intellectualize the world of my experience.

—Wolcott (1994)

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To the strong and resilient women in my family who inspire me to keep moving forward

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## **ABSTRACT**

A Multiple-Group Path Analysis of the Role of Social Marginality on Self-Rated Physical Health among U.S. Latina/o Adults: An Intersectional Perspective

by

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Co-Chairs: Margarita Alegría and Ramaswami Mahalingam

Few studies examine differential exposure to forms of social marginality, and how they contribute to health outcomes among Latina/os. The first aim of this dissertation was to examine Latina/os' differential exposure to “dimensions” of social marginality (everyday discrimination and subjective social status in the U.S.). The second aim was to examine how health effects of social marginality unfold across Latina/os. Thirdly, this study examined the extent to which gender and ethnicity moderated relations between everyday discrimination, subjective social status in the U.S., psychological distress, and self-rated physical health. Data (N=2,554) were drawn from the National Latino and Asian American Study, which is comprised of Cuban women/men, Puerto Rican women/men, Mexican women/men, and Other Latina/o women/men.

Findings revealed that Puerto Rican men reported greater levels of everyday discrimination than other Latina/os, whereas Cuban women reported the least. On the other hand, Mexican men evidenced lower levels of subjective social status in the U.S., whereas Puerto Rican men reported the highest levels. Multiple-group path analysis

revealed that psychological distress mediated the relation between discrimination and self-rated physical health among all Latina/o subgroups except for Cuban and Puerto Rican males. On the other hand, subjective social status in the U.S. mediated the relation between discrimination and self-rated physical health only for Puerto Rican males. Gender and ethnicity moderated relations in the model. Specifically, in the face of perceived discrimination, being a Cuban male was associated with a higher perceived social status in the U.S. compared to Puerto Rican women. Conversely, in the face of perceived discrimination, being a Puerto Rican female was associated with a lower subjective social status compared to Cuban men. Moreover, in the context of perceived discrimination, being a Mexican female was associated with greater levels of psychological distress compared to Cuban men.

First, these findings underscore the importance of taking into account how multiple identities shape experiences of social marginality. Second, they highlight the multiple pathways linking discrimination to health for different Latina/o subgroups. Thirdly, results show for whom discrimination may be most detrimental. These findings have implications for understanding within-group processes and how we respond to subgroup-specific needs.

## CHAPTER I

### INTRODUCTION

Latina/os<sup>1</sup> constitute the largest and fastest growing ethnic minority population in the United States, comprising 16.3% (50.5 million) of the total U.S. population<sup>2</sup> (Passel, D’Vera, & Lopez, 2011). Indeed, Latina/os accounted for 56% of the nation’s growth in the past decade (Passel et al., 2011). Unquestionably, the demographic landscape of the U.S. is inevitably shifting. Despite the exponential growth of this population and its profound influence on American society, relatively little is known and understood about the heterogeneity that exists in life experiences, and economic and social conditions among this diverse group of people (Romero, Hondagneu-Sotelo, & Ortiz, 1997). In fact, a commonly held belief about the “Latina/o” experience in the U.S. is that all Latina/os have had the same mode of incorporation to the U.S. and thus confront the same social experiences (Nelson & Tienda, 1997). Such a belief fails to acknowledge the varying differences that exist in terms of the historical context of migration and experiences with reception into the new host society among different Latina/o subgroups (Nelson & Tienda, 1997; Romero et al., 1997). At the same time, it has been assumed that the aforementioned processes have functioned or been experienced in the same way among Latina/o men and women (Pedraza, 1991).

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<sup>1</sup> The terms “Latina/o” and “Hispanic” are used interchangeably throughout this dissertation to be consistent with how they are used in the literature. However, it is recognized that these two terms carry different historical and political significance and meanings. Further, in this dissertation these terms refer to persons of Cuban, Dominican, Mexican, Puerto Rican, and Central and South American descent.

<sup>2</sup> These figures also make Latina/os the second largest ethnic group in the U.S., after non-Hispanic White Americans.

On the contrary, the “Latina/o” experience in the U.S. is complex and multifaceted. That is, although the subethnic groups included in the Latina/o category share a legacy of Spanish colonization, and therefore a shared Spanish language, this common history of colonization obscures distinct patterns in other areas that have shaped the experiences of different Latina/o groups in the U.S. (Oboler, 1995; Oboler, 1997). In fact, Suarez-Orozco and Páez (2009) note that:

Latina/os have varied histories, cultural sensibilities, and current social predicaments. The vectors of race and color, gender, socioeconomic status, language, immigrant status, and mode of incorporation into the United States shape their experiences. (p. 4)

Accordingly, there is no monolithic “Latina/o” experience in the U.S. As such, decontextualized portrayals conceal important variations across cultural, historical, demographic, geographic, and social dimensions that are associated with different forms of social realities, psychosocial adaptation, and health profiles among Latina/o subgroups (Amaro et al., 1987; Guarnaccia et al., 2007; Portes & Zhou, 1993; Suarez-Orozco & Suarez-Orozco, 2001).

In contrast to the rapidly growing Latina/o population, Castro and Ramirez (1997 as cited in Vega & Lopez, 2001) found that among six leading psychology journals published before 1997, less than 1% of articles were about Latina/os. In fact, not until recently has research in the social sciences focused on Latina/os (Betancourt & Lopez, 1993). Further, although much has been noted about the importance of paying attention to the heterogeneity among Latina/os, there is a lack of empirical studies in the social sciences that aim to explore and understand phenomena among this group from a within-group approach. Moreover, research that has been conducted with Latina/os has primarily focused on comparing the group (as a whole) to other ethnic minority populations or

against non-Latina/o whites. Zsembik and Fennell (2005) could not have expressed this more eloquently when they stated that the underlying rationale for documenting and explaining ethnic variation in health among Latina/o adult populations

rests on the arguments that ethnic heterogeneity is not fully appreciated in health research, non-Mexican ethnic groups are inadequately examined, and thus conclusions regarding Hispanic disparities in health paradoxes may be overly simplistic. (p. 61)

This is also particularly true of the discrimination literature (Araújo & Borrell, 2006).

### **Limitations of the Literature: Filling in the Gaps**

Depending on one's social location, Latina/o men and women across subethnicities can find themselves confronting diametrically different social experiences. Given that the social categories that individuals belong to are accorded different rank and status in any given society (Croteau et al., 2002), a person can for example, belong to a devalued group status (e.g., being female), a privileged group status (e.g., middle-to-upper class), or even a social group that is both devalued and privileged (e.g., men of color). In fact, an extant body of research on the social determinants of health point to the importance of considering differential exposure to stress (Adler & Snibbe, 2003). Consequently, the *first objective* of this study is to identify patterns (differences and similarities) across Latina/o adult subgroups (at the intersections of gender and subethnicity) on mean levels of types of social marginality (i.e., self-reported everyday discrimination and subjective social status in the U.S.) in order to examine how multiple social categories work together to shape social experiences.

Moreover, whereas various studies have examined the correlates, as well as the direct relationship between discrimination and health outcomes, a major methodological

shortcoming has been the dearth of research that empirically examines how certain outcomes (e.g., health) develop or not as part of being discriminated (cf. Schwartz & Meyer, 2010). Many scholars have theorized and provided strong empirical support about the mechanisms and possible pathways by which health is manifested, but as Adler and Rehkopf (2008) noted, rarely have scholars explicitly tested the interactions of source, mediator, and outcome variables using path analysis or structural equation models. In fact, as noted by Schwartz and Meyer (2010), only three percent of studies examining discrimination as a stressor have conducted mediational analyses. An examination of the causal relationships and systematic testing of the multiple pathways via which discrimination comes to affect health among Latina/os remains an untapped area of empirical investigation. Therefore, the *second objective* of the study is to test a causal model of the interrelationships between self-reported everyday discrimination, subjective social status in the U.S., psychological distress, and self-rated physical health.

An even more scant area of study has been to test how processes might compare across Latina/o subgroups at the intersection of ethnicity and gender—despite that various scholars have noted that health research should focus on comparative studies that pay particular attention to group distinctiveness and to reassessing the pathways linking gender, race/ethnicity, and health (McDonough & Walters, 2001; Zsembik & Fennell, 2005). For example, which direct and indirect paths are relevant for some groups and not others? How do gender and ethnicity together moderate the multiple pathways from discrimination to health? Answering such questions may show how and for whom certain mechanisms affect health. Thus, the *third objective* of this study is to examine whether

gender and ethnicity moderate the overall model paths across Latina/o subgroups, and the extent to which groups differ on specific relations.

Unlike much prior work on discrimination and social status among Latina/os, the present study attempts to uncover the heterogeneity that exists in experiences of everyday discrimination and subjective social status among Latina/o subgroups. Likewise, the present study adds to the literature on Latina/o health by examining how the relationships between everyday discrimination, subjective social status, and health outcomes differ as a function of both gender and ethnicity. Research conducted from a within-group approach has the potential to result in more refined theory of phenomena and processes under investigation among a particular racial or ethnic group. This is of particular significance if we are to avoid making generalizations about any one group and their health profiles against any another racial or ethnic group. Indeed, Zambrana and Carter-Pokras (2001) poignantly stated that, “future analyses by Hispanic subgroup can serve to define unmet public health needs and identify...risk factors for each group” (p. 27).

Significantly, whereas many of the studies on Latina/os employ college samples or geographically-limited populations, this dissertation employs data from the National Latino and Asian American Study (NLAAS; Alegria et al., 2004a), the most comprehensive nationally representative epidemiological study of Latina/o mental health in the U.S., consisting of large samples of the three largest Latina/o groups as well as a significant group of “Other Latinos.” Therefore, findings from the present study will be generalizable to the larger U.S. Latina/o population.

## **Organization of Dissertation**

This dissertation is organized as follows. I first review the literature on mental and physical health, discrimination, and socioeconomic and subjective social status. I pay particular attention to self-reported everyday discrimination and subjective social status in the U.S. as forms of social marginality. Second, I describe the usefulness of integrating the social marginality and intersectionality frameworks for understanding the health consequences of discrimination among Latina/os. Given the immensity of the aforementioned topics, only a selective review of the most relevant literature is discussed. Lastly, I present and explain the conceptual framework that will be empirically tested, along with research questions and hypotheses. Following, I focus on the study methods, results, discussion, limitations and future research directions, and conclusion.

## **CHAPTER II**

### **LITERATURE REVIEW**

#### **Morbidity Indicators of Latina/os: On Challenging Latina/o Homogeneity**

A growing body of literature exists examining the so-called “immigrant paradox,” oftentimes termed the “Latina/o health paradox” (Acevedo-Garcia & Bates, 2008; Alegría et al., 2007; Zsembik & Fennell, 2005)—a term typically used in the epidemiologic literature to describe the paradoxical finding that despite Latina/o immigrants’ low educational attainment and high poverty levels, they evidence better health and lower mortality rates than the average population (Acevedo-Garcia & Bates, 2008; Franzini, Ribble, & Keddie, 2001; Hayes-Bautista, 2002; Palloni & Arias, 2004). This “paradox” however, continues to be debated, since recent research finds that there is heterogeneity among Latina/o subgroups in health outcomes, in that not all Latina/os experience a health advantage (Alegría, Canino, Shrout et al., 2008; Palloni & Arias, 2004; Zsembik & Fennell, 2005), especially when considering different subgroups and outcomes (Alegría et al., 2006; Alegría et al., 2007; Zsembik & Fennell, 2005).

Although by no means exhaustive, in the sections that follow, I discuss mental and physical health literature that not only compares Latina/os to non-Hispanics whites, but also compares Latina/os against each other in order to illustrate the relative importance of paying attention to within-group analyses of mental and physical health outcomes among such a heterogeneous population.

### *Psychological Distress, Depressive Symptomatology, and Depression*

To date, many studies that have examined psychological distress and depressive symptomatology among Latina/os have focused on college or small community samples. However, Table 2 presents data from the U.S. Centers for Disease Control and Prevention (CDC, 2006) on indicators of psychological distress (e.g., sadness, hopelessness, worthlessness, and effort) among non-Hispanic whites, non-Hispanic blacks, and Hispanics/Latinos, stratified by sex. As can be gleaned from these data, Hispanic females report greater proportions of experiencing sadness (4.3%), hopelessness (3.0%), worthlessness (2.3%), and that everything is an effort (6.0%) “all or most of the time” compared to their Hispanic male, non-White female, and non-White male counterparts. Indeed, these findings are consistent with much of the literature on Latina/o mental health, which finds that female gender is associated with greater levels of depressive symptomatology and psychological distress (Salgado de Snyder, Cervantes, & Padilla, 1990; Rivera et al., 2008). Moreover, in a meta-analysis of depression among Latina/os in the U.S., Mendelson and colleagues (2008) found that Latinos as compared to non-Latino Whites reported more depressive symptoms.

Most of these studies on mental health have centered on Mexican-origin populations. However, studies examining psychological distress and depressive symptomatology across Latina/o subgroups have found that generally, Puerto Ricans show elevated rates of both psychological distress (Rivera et al., 2008) and depressive symptomatology (Moscicki et al., 1987). Moreover, although high levels of depressive symptomatology were noted among Cuban Americans in the first population-based health survey of US Latinos (HHANES; Narrow et al., 1990), these rates were lower than for

those found among Puerto Ricans and Mexicans (Moscicki et al., 1987). Moreover, Puerto Ricans evidenced higher levels of depressive symptomatology than Mexicans in the HHANES (Moscicki et al., 1987; Moscicki et al., 1989). Likewise, a more recent study using the NLAAS (Rivera et al., 2008) found Puerto Ricans reported significantly higher levels of psychological distress than Cubans, Mexicans, and Other Latinos.

One of the few studies examining depressive symptomatology among Central Americans (Salgado de Snyder et al., 1990) showed they evidenced significantly greater levels of depressive symptoms than their Mexican counterparts. Importantly, higher levels of depressive symptoms were also noted among Latino women when compared to their male counterparts. Although this study was restricted to adults in the Los Angeles area, the findings provide some groundwork for better understanding the mental health status of a population that is increasing in numbers (i.e., Salvadorans), but is typically lumped together in the “Other Latino” category.

At the same time, Munet-Vilaró, Folkman, and Gregorich (1999) in a comparative study of Mexicans in Mexico City, Puerto Ricans living on the island of Puerto Rico, and Latino immigrants living in the U.S., showed that depressive symptomatology across all three groups was significantly higher than that reported for non-Hispanic whites in the U.S. and in other samples of Latina/os. However, between these three groups, Latino immigrants in the U.S. reported the highest levels of depressive symptoms, followed by the Puerto Rican and the Mexican samples (MUNET-VILARÓ et al., 1999).

There have been five major epidemiological surveys that have focused on the health of Latina/os (the Hispanic Health and Nutrition Examination Survey [HHANES]; the Los Angeles Epidemiologic Catchment Area Study [LA-ECA]; the Puerto Rico

Epidemiologic Catchment Area Study [PR-ECA]; the Mexican American Prevalence and Services Study [MAPSS]; the National Latino and Asian American Study [NLAAS]; cf. Canino & Alegría, 2011; Guarnaccia et al., 2005). Studies resulting from these surveys have provided prevalence rates of major depression among Latina/os.

For example, both the National Comorbidity Survey (NSC) and the National Comorbidity Survey-Replication (NSC-R) found that compared to non-Latino whites, Latinos (as an aggregate group) had a significantly lower risk of any depressive disorder (Kessler et al., 1994; Kessler et al., 2005). However, other studies have found that prevalence rates depend on the type of depression examined. For example, the prevalence of major depression was significantly lower among Mexican Americans compared to non-Latino whites in the National Health and Nutrition Examination Survey III, although the prevalence of dysthymic disorder was significantly higher for Mexican Americans (7.40%) compared to non-Hispanic whites (5.70%) in this same study (Riolo et al., 2005)<sup>3</sup>. These findings have significant implications, particularly because they were partially explained by poverty and lack of education, and they were also dependent on gender. That is, the gradient for education was most noticeable for Mexican women compared to Mexican men, such that those with lower levels of education had higher prevalence of dysthymic disorder (Riolo et al., 2005). Therefore, these data are suggestive that those most socially and economically marginalized may be at greater risk of prolonged chronic depression.

Recent research, however, has begun to center on prevalence of psychiatric disorders (including major depression) across different groups of Latina/os. For example,

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<sup>3</sup> African Americans also had significantly higher prevalence of dysthymic disorder than non-Hispanic whites (Riolo et al., 2005).

in the HHANES, Puerto Ricans had higher lifetime prevalence rates for a major depressive episode and within the past month compared to Cubans and Mexicans (Moscicki et al., 1987). Importantly, rates for Latino women were significantly higher than those for Latino men. Given the low response rates of Cubans in the HHANES survey, the authors argued that these findings were tentative at best. Further, a study that came out of the NLAAS not only examined differences by national origin or gender alone, but also examined them together to better understand mental health outcomes among segments of the Latina/o population (Alegría et al., 2007). Alegría and colleagues (2007) found that Puerto Rican men and women compared to their Latino subgroups had higher rates of any past-year psychiatric disorders compared to the other Latino subgroups. Also, Puerto Ricans, compared to their Mexican men and women counterparts, were more likely to have a history of depressive disorders.

As noted by Canino and Alegría (2011) in their epidemiologic overview of Latino adult and child psychopathology, the Puerto Rican population seems to be at greater risk for most psychiatric disorders compared to any of the other Latina/o subgroups. Moreover, they also show that the “health paradox” that is most evident among Mexicans is not observed for Puerto Ricans. In sum, these studies draw attention to the importance of examining what puts some groups of Latina/os compared to others more at risk of developing adverse mental health problems (e.g., psychological distress, depression).

### *Physical Health*

The past few years have seen a growth of research on the physical health of Latina/os. Most of the work conducted to date in this area has focused on self-rated general or self-rated physical health. This is probably because these measures are

important indicators of population health and for predicting poor health outcomes across ethnic and racial groups (Viruell-Fuentes et al., 2010). In general, studies comparing Latinos and non-Hispanic whites have shown that when compared to non-Latino whites, Latina/os tend to report poorer health (Browning, Cagney, & Wen, 2003; Liang et al., 2010; Read & Gorman, 2006). Health summary statistics in 2006 from the Centers for Disease Control and Prevention (CDC) showed that compared to non-Latino whites (males and females), Latino females and males were more likely to rate their health as “good” or “fair/poor” (see Table 3). Non-Latino whites on the other hand, were more likely than Latina/os to rate their health as “excellent/very good” (see Table 3). Importantly, a higher percentage of Latino females (18.2%) rated their health as “fair or poor” compared to their Latino male counterparts (16%).

Further, Browning et al. (2003) found among their multi-ethnic adult sample of Chicago residents from the Metropolitan Community Information Center-Metro Survey, that African American and Latina/o ethnicity were associated with poor self-rated health compared to non-Hispanic whites, although a larger association was noted for Latina/o ethnicity. Moreover, using longitudinally and nationally representative data from the Health and Retirement Study (1995-2006), Liang and colleagues (2010) examined changes in self-rated health over time and found that Hispanics and non-Hispanic blacks showed significantly worse levels of self-rated health than non-Hispanic whites. However, Hispanics, compared to non-Hispanic whites and non-Hispanic blacks, exhibited a greater rate of worsening health (Liang et al., 2010). Importantly, adjusting for a number of covariates, including nativity, language of interview, and age at immigration, did not alter the findings. Likewise, women rated their health more

positively than did men, though they did not differ on the rate of change.

Other studies have extended this area of study further to examine how different Latina/o subethnic groups compare on self-rated physical health. Mulvaney-Day and colleagues (2007) reported that among a national sample of Latina/os, there were significant associations between subethnicity and self-rated physical health. That is, compared to Other Latinos, being of Mexican origin was associated with poorer self-rated physical health. Significantly, female gender was also associated with poorer self-rated physical health. Both of these associations remained significant even after adjustment of a number of other variables.

In one of the most recent comprehensive studies of Latina/o health, examining both self-rated health and specific health conditions, Zsembik and Fennell (2005) using data pooled from the 1997-2001 National Health Interview Surveys (NHIS), found a significant difference across Latino ethnic groups on self-rated health and medical conditions. A greater proportion of Mexicans reported “good-excellent” health, whereas a greater proportion of Puerto Ricans, Cubans, and Dominicans reported “fair” or “poor” health. Importantly, the subjective health ratings by Mexicans were comparable to non-Latino whites’. In terms of medical conditions, Mexicans reported significantly fewer of them compared to all other Latina/o subgroups. Significantly, this study found that the effects of social determinants of health (e.g., SES, acculturation, health risks) were dependent on subethnicity, suggesting that differential health profiles across Latina/o subgroups is accounted for by the salience of certain mechanisms among each group. However, this study notes that across health measures, Mexicans evidenced a health advantage (even compared to Whites), whereas Puerto Ricans showed a disadvantaged

health profile, and Cubans and Dominicans reveal a mix of both advantages and disadvantages across health measures.

Significantly, rarely is data broken down by gender, and even less for gender by ethnicity, despite that these two social categories are associated with health. An exception to this trend in the health literature is a recent study that examined whether gender differences in men and women's health (self-rated health, functional limitations, medical conditions) existed across racial and ethnic groups. Employing data from the 1997-2000 waves of the NHIS, Read and Gorman (2006) showed that gender differences depended on racial/ethnic group, health outcome, and comparison category. However, focusing in on the Latina/o subgroups, the gender gap is largest among Cubans for all three health measures: 29% for women compared to 17% of men reported they had a functional limitation; 36.2% of women and 26.2% of men and reported they had a life-threatening medical condition; and 20.3% of women reported poor or fair self-rated health compared to 13.8% of men in their group. Among Mexicans, women reported worse health across all three indicators of health, though the gender gap was not as large as for Cubans. For Puerto Ricans on the other hand, a gender difference was only noted for functional limitation, with women reporting greater functional limitation. Moreover, in multivariable analyses adjusting for sociodemographic factors and contrasting the self-rated health status of women to men of their own ethnic group, Mexican and Puerto Rican women are significantly less likely to report fair-to-poor health compared to their male counterparts. The pattern for gender differences on functional limitations was in complete contrast to that of self-rated health, with women in each ethnic group reporting significantly elevated odds of reporting more functional limitations than their male

counterparts (Cuban women showing 81% elevated odds, 44% for Mexican women, 41% for Puerto Rican women; Read & Gorman, 2006). Without a doubt, findings from this study support the longstanding argument that gender and ethnicity/race shape health profiles in significant ways. Likewise, as the authors note, the findings for functional limitation underscore the need to address women's excess morbidity on a critical outcome that affects daily life.

Although the focus of the majority of the aforementioned studies were not to identify gender by subethnic group differences, findings from some of these studies, especially the study by Read and Gorman (2006), suggest that both gender and ethnicity influence health across different domains. Overall, results from these studies also call attention to further examining the "Latino health paradox," given it does not necessarily hold true with regards to physical health either.

#### *Summary of Health Literatures*

Germane to any analysis of Latina/os is the vast heterogeneity among this group. Collectively, the differential patterns in mental and physical health outcomes noted in the aforementioned studies challenge the utility of a pan-ethnic Latina/o category when examining health outcomes and disparities (Zsembik & Fennell, 2005). This review of Latino mental and physical health suggests that not all Latina/os experience the same rates and risks for illnesses. By and large, the findings across these studies point to a jeopardized health status of Puerto Ricans, and an advantaged health status of Cubans. Mexicans generally lie between these two groups, especially because of the paradoxical health status of Mexican immigrants. Indeed, representations of Latino health in an aggregate form do not represent an accurate picture of this group's health status (cf. Vega

& Amaro, 1994).

The literature on Latino mental and physical health has matured in the past few years. However, the changing racial and ethnic landscape of this country offers a great opportunity and context in which to continue to challenge the “Latina/o health paradox.” For example, much research remains regarding the social determinants of mental and physical health across different segments of the Latino population. In particular, identifying how aspects of social marginality affect the mental and physical health of Latina/o subgroups is critical to understanding and explaining the differential health profiles of different groups, as well as in understanding why health disparities may exist.

Indeed, a limitation in the epidemiological study of Latino health has been the lack of research that goes beyond comparisons of group profiles in health outcomes and that explores patterns in the association of mechanisms behind differences across subgroups. Vega and colleagues (2009) noted the importance in considering broader social factors that put some groups at increased or decreased risk of developing specific health conditions. In fact, various health researchers have argued that to understand health outcomes among any one ethnic or racial minority group requires paying particular attention to broader social factors such as discrimination and SES (Krieger, 1999; Williams, 1999). In effect, the differences in health outcomes noted among Latina/o subgroups can very well be a function of such factors. Consequently, in the sections that follow I focus my discussion on the role of discrimination and socioeconomic status as key social determinants of mental and physical health among Latina/os in the U.S.

## Discrimination

Discrimination has been defined in various ways, particularly because of the differences in which it arises and is expressed, in addition to how it has been conceptualized across disciplines<sup>4</sup> (see Krieger, 1999 for a full discussion of conceptualizing discrimination in population health). However, most of the existing definitions have one thing in common—they all focus on how “perpetrators of discrimination act unfairly toward members of socially defined subordinate groups to reinforce relations of dominance and subordination, thereby bolstering privileges conferred to them as members of a dominant group” (Krieger, 1999, p. 301). Indeed, discrimination, unlike prejudice or stereotyping, has been noted to have the most behavioral component to social-category based reactions (Fiske, 1998).

Psychology as a field, and social psychology more specifically, has primarily focused not on documenting the frequency of discrimination, but rather, on the underlying psychological processes that make people discriminate against others (Fiske, 1998). For example, social psychology has mainly focused on examining racial attitudes and behaviors among whites. Therefore, less attention has been placed on understanding the target’s perspective, though more recent research on discrimination is now focused on the latter. Sociology on the other hand, has a long history of paying attention to structural discrimination as contributing to the confinement of ethnic minorities into segregated and impoverished communities, low-wage labor, underprivileged schools, among other structural domains (e.g., employment discrimination), all which diminish the life chances of the target (Massey, 1981; Massey, 1990; Massey, 2004). More recently, the field of

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<sup>4</sup> A full review of discrimination in the U.S., its conceptualizations, and measurement is beyond the scope of this dissertation literature review. Thus, I review briefly how interpersonal discrimination—the focus of the present study—has been defined, measured, and examined in psychology and the health literatures.

public health, namely social epidemiology, has largely focused on quantitatively examining (i.e., through self-reports) the discriminatory experiences (i.e., chronic individual-level discrimination) of those who have been the targets of unfair treatment (Gee et al., 2006; Krieger, 1999; Ryan et al., 2006; Williams & Mohammed, 2009), thereby allowing for the examination of prevalence rates of discriminatory incidents among population-based social groups as a way to better understand its effects on population health.<sup>5</sup>

In fact, given the expression of discrimination in contemporary U.S. society has shifted from overt, blatant discrimination to more covert, subtle forms; in the past several years, a greater focus has been placed on *perceptions* of discrimination that usually take the form of covert expressions of differential treatment against another individual (e.g., shopkeeper/shopper; Essed, 1991; Harrell, 2000; Krieger, 1999). This form of discrimination is measured at the *interpersonal level* rather than at the structural, and from the target and not the perpetrator's perspective. The predominant understanding of direct interpersonal discrimination—also most commonly referred to as *everyday discrimination* or *unfair treatment* is one which focuses on events that to the dominant group (i.e., European Americans) are typically seen as “normal” or “ordinary” but instead are socially patterned (Essed, 1991).

The concept of everyday discrimination brought forth by Philomena Essed (1991) refers to the unfortunate daily realities that many people of color contend with. For example, in a typical day, “everyday” forms of discrimination can range from being followed around in a store, being treated as less smart, or being treated rudely. These are

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<sup>5</sup> It should be noted that social epidemiology has also paid large attention to structural discrimination, such as the effects of segregation and other neighborhood-level effects on population health.

not unlikely acts for people of color, many of which they typically experience in different interpersonal contexts (e.g., work, stores, school; see Figure 1 for an example). These instances of unfair treatment can be attributed to any reason (e.g., ethnicity, age, weight, language, etc.).

To illustrate, an example of everyday discrimination is exemplified by the quote below, wherein differential treatment (in a negative manner) is accorded based on accent.

Oh yeah! Just because of your accent. Oh yeah! Just because you're in line and you're talking to somebody and they heard you talking and somebody is in front of you or behind you, they are going to serve the one behind you just because of the way your accent sounds like. (Goodkind et al., 2008, p. 207)

Although waiting in line to be served may be a routine event for any one person, for people of color, these daily routine procedures can be racialized (Harrell, 2000). Indeed, Makkonen (2002) notes, “people are not, as a general rule, discriminated against because of who or what they really are, but because of what they are *thought* to be or represent” (p. 2). In so far that those with perceived limited English fluency are thought to occupy a lower social standing, are somehow inferior to the perpetrator, or “deserve” to be treated differently, they will more likely than not, experience this form of unfair treatment to a greater extent than those not perceived in such a manner. The same could be expected regarding other visible social categories (e.g., ethnicity and race).

Of significance, targets of discrimination are quite aware of the discrimination that is directed towards them and others, despite that “subtle” everyday discrimination may be difficult to discern. For example, among Latina/os in the U.S., a 2009 survey conducted by the Pew Hispanic Center on Hispanics 16 years and older found that one-third (32%) reported they, a family member, or a close friend had experienced

discrimination (due to their race or ethnicity) in the five years prior to the survey (see Figure 1). Over time (from 1990-2009), the rate of reported experiences with discrimination by Latinos or friends and family has ranged from 31% to 41% (Pew Hispanic Center, 2009; see Figure 2). It is these perceptions of discrimination that can generate stress, making the onset and progression of mental and physical health problems more likely (Williams & Mohammed, 2009). In fact, it is the recounting of these negative experiences that is associated with poor health (Clark, 1999; Gee et al., 2006). Moreover, despite that discrimination has been conceptualized and defined in different ways across fields, generally, an inverse association between discrimination and a broad range of health outcomes has been noted (Krieger, 1999; Paradies, 2006; Williams & Mohammed, 2009). As a result, it is no surprise as to why there has been a rapid growth of research in this area of scientific study.

### **Discrimination and its Relation to Mental and Physical Health among Latina/os**

You feel that people are looking at you ugly [because you are Mexican]. And sometimes people do show it openly, right? They look at you up and down...And [the other day at the store] there were two older White women behind me, and they were looking me up and down just like that; I tried smiling at them, but they wouldn't smile back. They were staring at me; it upset me. (31 yr. old Mexican woman living in the U.S. for 12 years; Viruell-Fuentes, 2007, p. 1527)

The experience of everyday discrimination is not a foreign social phenomenon for most Latina/os in the U.S., albeit experienced in different ways. Instances such as the one expressed in the quote above are subtle reminders of one's difference and place in U.S. society. Indeed, these forms of discrimination are not randomly distributed, but are rather

strongly related to race and ethnicity (Essed, 1991; Harrell, 2000; Jackson et al., 1998). However, even the quote above does not capture the full extent of discrimination that many Latina/os face in their everyday lives. For example, the National Latino Survey (Pew Hispanic Center, 2008; see Figure 1) found that most Hispanics said discrimination was a major problem in schools (64%), the workplace (58%), and in preventing them from succeeding in America (54%). Unfortunately, these negative experiences endanger Latinos' health and well-being.

Several empirical studies have found that this form of discrimination is a common experience in the lives of people of color (Araújo & Borrell, 2008; Paradies, 2006; Pérez et al., 2008; Stuber et al., 2003). It is therefore not surprising that discrimination is related to worse mental and physical health outcomes among ethnic minorities (Alegría et al., 2007; Amaro et al., 1987; Finch, Kolody, & Vega, 2000; Kessler, Mickelson, & Williams, 1999; Paradies, 2006; Williams & Mohammed, 2009). In fact, in a recent review of the literature on discrimination and health, Paradies (2006) found that self-reported discrimination is associated with ill health among racial and ethnic groups, even after adjusting for a number of confounders. Moreover, Pascoe and Richman (2009), in a meta-analysis of 134 studies on perceived discrimination and health, found a significant negative effect of discrimination on both mental and physical health. Indeed, the last two decades have thus seen a rise in empirical studies examining the relation between discrimination and mental/physical health among populations of color (Krieger, 1990; Paradies, 2006; Williams et al., 2003).

However, this burgeoning of research examining the effects of discrimination on health among populations of color has mostly centered on the experience of African

Americans. Likewise, in the past few years, there has been a growth of empirical studies in this area on the experience of Asian Americans. Despite this notable and important increase of attention paid to the discrimination-health relation among these groups, despite that Latina/os constitute the largest ethnic minority group, only a few studies have actually examined this relation among Latina/o adult populations (Alegria et al., 2007; Finch et al., 2000; Finch et al., 2001; Krieger et al., 2005; Landrine et al., 2006; Lee & Ferraro, 2009; Moradi & Risco, 2006; Stuber et al., 2003; Torres, 2009). This is of great significance, since in a survey conducted by the Pew Hispanic Center in 2009, 23% (1-in 4) of Americans (i.e., Whites, Blacks, Asians, Hispanics) said Hispanics are discriminated against “a lot,” making them the racial/ethnic group Americans felt were most often subjected to discrimination in society today (Pew Social and Demographic Trends, 2010; see Figure 3). In fact, this percentage represents a change from 2001, when 25% of Americans said blacks were discriminated against “a lot,” whereas only 19% said the same regarding Hispanics/Latinos during the same period. These statistics are not surprising, since the Black-White dichotomy that dominated U.S. racial dynamics no longer completely holds, given the growth of the Latina/o population as well as the more recent backlash against Latina/o immigrants (Forman, Goar, & Lewis, 2002). Without a doubt, paying attention to discrimination and its effects on the health of Latina/os comes at a critical historic moment in time.

Moreover, those studies that have examined discrimination experiences and its impact among Latina/os have mostly either focused on one ethnic group, particularly Mexican Americans, or Latina/os as a singular group. At the same time, most of the studies focused on Latina/os have typically included discrimination within the

acculturative stress rubric, although these two constructs differ from one another. Little is therefore known about the experience of everyday discrimination and its impact among different groups of Latina/os.

Among Latina/o adults, discrimination (measured in a number of ways) has been shown to increase mental health problems (Alegría et al., 2007; Amaro et al., 1987; Finch et al., 2000; Gee et al., 2006; Krieger et al., 2005; Landrine et al., 2006; Moradi & Risco, 2006; Salgado de Snyder, 1987; Torres, 2009). In fact, in the most recent review of the literature on discrimination and mental health outcomes among Latina/os in the U.S., Araújo and Borrell (2006) noted that discrimination experiences played a significant (adverse) role on the mental health of this population.

For example, Landrine and colleagues (2006) found general ethnic discrimination related positively to psychiatric symptoms among Latina/o adults in California. In a validation study of the Experiences of Discrimination measure with working class adults in the Greater Boston area, Massachusetts, Krieger et al. (2005) found discrimination (unfair treatment) was associated with psychological distress among Latina/o respondents. Moreover, in a multi-ethnic sample of immigrants in New Hampshire, Gee and colleagues (2006) found that self-reported discrimination was associated with poor mental health status among Mexican Americans and other Latinos. Although the aforementioned studies provide important information regarding the association between discrimination and mental health, they are limited in their generalizability, given they were based on geographically-restricted samples of Latina/os. To date, only one study has assessed the direct relation between discrimination and psychiatric disorders among Latina/os. Alegría and colleagues (2007) found, using the NLAAS, that frequency of

everyday discrimination was associated with higher odds of past-year anxiety disorder after adjusting for family-level, contextual, and social status factors.

Although studies focusing on the effects of discrimination on physical health among Latina/os are in their infancy, there is a growing body of research that suggests that discrimination not only negatively affects the mental health of Latina/os, but also adversely affects their physical health—both actual and self-reported (Amaro, 2005; Finch et al., 2001; Flores et al., 2008; Lee & Ferraro, 2009; Ryan et al., 2006). Finch et al. (2001) in a study of Mexican-origin adults, found that discrimination was related to poor physical health, even after adjusting for acculturation stress, national origin, social support, and sociodemographic factors. In a later study, Finch and Vega (2003) found discrimination was associated with “fair/poor” health among Mexican adults, but only before adjustment of covariates.

Moreover, Flores et al. (2008) in a sample of Mexican/Mexican American adults from California, showed that perceived discrimination was significantly related to poorer health and more health symptoms, even after adjusting for age, gender, SES, and acculturation. However, after adjusting also for perceived stress, greater perceived discrimination remained a significant predictor of poorer self-perceived general health, but not health symptoms. Moreover, in a recent comparative study of Latina/os, Lee and Ferraro (2009) likewise found a positive association between perceived discrimination and physical health (i.e., defined as acute physical health symptoms and disability) among Mexican Americans and Puerto Ricans residing in Chicago. One of the few studies that included Latinos while examining both perceived physical health and physiological reactivity (i.e., blood pressure), found that discrimination was associated

with decreased physical health and increased systolic blood pressure among Latino immigrants in New Hampshire (Ryan et al., 2006).

Taken together, these studies point to the importance of considering both mental and physical health measures when examining the effects of discrimination on the health of Latina/os. Moreover, they suggest that the effects of discrimination appear to manifest themselves not only as psychological responses, but may also physically harm Latina/os. At the same time, it should be noted that whereas most studies assessing mental health outcomes show a reliable association with discrimination, the relation between discrimination and physical health seems to be less consistent.

### **Socioeconomic Status**

Independent of race and ethnicity, socioeconomic and structural disadvantage have been shown to be associated with early mortality, receiving poor medical care or no care at all, poor health, fewer opportunities for social mobility (e.g., determining educational and employment opportunities), and residential segregation (Adler et al., 2000; Massey, 1990; Robert, 1999; Vega et al., 2009; Williams, 1999; Williams & Collins, 1995). Table 1 shows that based on 2000 U.S. Census decennial data, Hispanics/Latinos (as an aggregate group) had higher rates of living in poverty, of being unemployed and out of the labor force, of being female-headed households with children under 18 years of age, and had lower rates of earning a college degree, of being affluent, and of having managerial/professional/or related occupations than did non-Hispanic whites. In fact, even when the Hispanic/Latino category is broken down by subethnic and gender groupings, similar patterns emerge (see Table 1). Indeed, they remain at the

margins of U.S. society in terms of socioeconomic markers (Alarcón & Ruiz, 2009). As Alarcón and Ruiz (2009) so poignantly stated, “the Hispanic population is prominently situated in the ‘fringe line’ of these pervasive realities” (p. 36). It is regrettable that Latina/os continue to be one of the nation’s most disenfranchised groups (Marotta & Garcia, 2003).

The health literature is actively engaged in understanding how socioeconomic status conditions health status—that is, in understanding the underlying mechanisms by which socioeconomic status influences both mental and physical health. However, most of the literature on SES has focused on one aspect of it—primarily that which includes resources such as education, income, and wealth. On the other hand, less research has focused on another dimension of SES—social class—that which focuses on status and rank (i.e., relative position in the social hierarchy; AAP, 2000). Nonetheless, in the past decade, there has been a growth of research aimed at understanding and examining how *subjective* social status affects health (Adler et al., 2000; Adler & Rehkopf, 2008; Ostrove et al., 2000; Singh-Manoux et al., 2003). In fact, although it is widely accepted that objective indicators of SES are a major determinant of health, various scholars have also noted that one’s social status in the social hierarchy is equally a key social determinant of health inequality (Adler et al., 2000; Marmot, 2004; Vega et al., 2009; Williams et al., 1997). Indeed, in *The Status Syndrome*, Marmot (2004) provided ample empirical evidence suggesting that where one stands relative to others in the hierarchy is equally, and sometimes more important for health than objective measures of SES.

## **Subjective Social Status and its Relation to Mental and Physical Health**

According to American standards, I've been privileged with regard to education and now I'm working toward one of the most prestigious degrees that can be awarded in the U.S., but I can't help but second guess myself and still feel like a second-class citizen... (Hispanic male participant, Park-Taylor et al., 2008, p. 135)

We are here...not in poverty, more like medium wealth and we can live a little between than below poverty (Mexican immigrant woman; Franzini & Fernandez-Esquer, p. 788)

Subjective social status has been defined as “a person’s belief about his location in a status order” (Davis, 1956 as cited in Singh-Manoux et al., 2003, p. 1321).

Theoretically, the concept of subjective social status most likely reflects an individual’s assessment of their past and current socioeconomic conditions, their educational, economic and occupational background, in addition to future prospects (Adler et al., 2000; Franzini & Fernandez-Esquer, 2006). For example, Operario and colleagues (2004) suggested that the differential status accorded to receiving a degree from an Ivy League school compared to one earned from a local college would not be captured by standard SES measures, given both individuals would be coded the same (i.e., college educated), but instead may be captured by subjective social status. In fact, as illustrated from the quotes above, subjective social status is not static, but rather fluid<sup>6</sup>. One’s assessment of social status may change depending on the reference or anchor used to compare oneself against (cf. Wolff et al., 2010). It is not absolute. Likewise, unlike objective measures of SES, which each measure one aspect of social position, subjective social status incorporates all dimensions of SES (Singh-Manoux et al., 2003). Indeed, the first quote above illustrates that irrespective of high levels of education and prestige, one can still

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<sup>6</sup> This is similar to the concept of social marginality, which is fluid, relative and never absolute.

feel “like a second-class citizen.” Educational attainment, in this case, may not necessarily fully capture an individual’s socioeconomic position in society. It is precisely this—that despite a person’s actual socioeconomic conditions (e.g., holding a prestigious educational degree), it is the feelings (e.g., anxiety, stress) associated with a perceived low social position that is typically most predictive of health (Adler et al., 2000; Operario, Adler, & Williams, 2004).

In fact, scholars from various disciplines have come to recognize that one’s perceptions of her/his place in the social hierarchy can become manifested through health. As Marmot (2004) stated, where an individual stands in the social hierarchy is closely associated with one’s chances of getting ill, as well as with longevity. In particular, a perceived lower social status can engender mental and physical health problems (Adler & Rehkopf, 2008; Singh-Manoux, Marmot, & Adler, 2005), whereas perceiving oneself as having higher social standing can decrease the likelihood of illness (Alegría et al., 2007; Singh-Manoux et al., 2003). Marmot (2004) so eloquently illustrated this when he noted:

You are not poor. You are employed. Your children are well fed. You live in a decent house or apartment. You turn on the faucet and drink the water in the secure knowledge that it is clean. The food you buy is similarly not contaminated. Most people you come across in your daily routine also meet this description. But, among these people, none of whom is destitute or even poor, you acknowledge that some are higher than you in the social hierarchy: they may have more money, bigger houses, a more prestigious job, more status in the eyes of others, or simply a higher-class way of speaking. You also note that there are other people lower than you on these criteria, not just the very poor or the homeless, but people whose standing is merely lower than yours, to a varying extent. The remarkable finding is that among *all* of these people, the higher the status in the pecking order, the healthier they are likely to be. In other words, health follows a social gradient. I call this the status syndrome. (p.1)

However, it isn't merely one's perception of being in a lower or higher social position than someone else that is good or bad for a person's health. Instead, Marmot argues that it is the inequality in degree of autonomy and control one has over one's life and the opportunities for full social engagement that undergird the "status syndrome," and which play a significant role in producing a social gradient in health. Undoubtedly, understanding how people see their own position in the status hierarchy becomes critical for understanding how one's subjective class identification becomes embodied and manifested in one's health (Krieger, 1999).

In fact, the fields of health psychology and social epidemiology have seen a growth in studies examining the role of subjective social status on health. For example, Adler and colleagues (2000) provided preliminary data on the relationship between a measure of subjective social status<sup>7</sup> and psychological and physiological functioning among a sample of healthy White women. This study found the measure to be strongly associated with psychological (e.g., chronic stress, pessimism, control over life, active coping, and passive coping) and physiological (sleep latency, heart rate) functioning after controlling for objective indices of SES and negative affect. Further, Singh-Manoux and colleagues (2003) in a prospective cohort study of London-based civil service employees (i.e., Whitehall II study) found that subjective social status was a strong predictor of ill-health. Particularly, results showed that subjective status had a significant relation with diabetes, self-rated general health, and depression, meaning women in this sample had more diabetes, poor self-rated health, and depression than women who perceived their subjective status high. Among men, those with low subjective social status, there was a

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<sup>7</sup> This measure is a symbolic ladder with 10 rungs that asks respondents to place themselves in comparison with others in the U.S.—ranging from being at the top or bottom of U.S. society. See Methods section for further description of this scale.

significant association with all the health measures included in the study. Specifically, men with low subjective status had more angina, diabetes, respiratory illness, poor self-rated general health, and depression (Singh-Manoux et al., 2003).

Moreover, in a validation study of the subjective social status measure among a U.S. national sample of adults, Operario and colleagues (2004) found that this measure was positively associated with self-rated health and negatively with negative affect (i.e., psychological distress). Although this two study included ethnic minorities in their sample, data were not stratified by race and ethnicity, and therefore the extent to which the relation between subjective social status and health compared across racial and ethnic groups is unknown. Moreover, in a more recent study employing a national sample of adults, Wolff and colleagues (2010) showed that after controlling for objective SES measures and other sociodemographic covariates, measures of subjective social status using different reference groups (compared to others in the U.S., compared to others of the same race/ethnicity, compared to neighbors, and compared to one's parents) were all associated with poor self-rated health. Interestingly, the interaction of race/ethnicity and subjective social status was non-significant, suggesting that differences found in this study with those that have focused on multi-ethnic samples may be due to the types of samples employed (e.g., national versus small community samples, pregnant women).

In fact, only a limited number of empirical studies have examined the relationship between subjective social status and mental and physical health among ethnic minorities (de Castro, Gee, & Takeuchi, 2010; Franzini & Fernandez-Esquer, 2006; Leu et al., 2008; Nicklett & Burgard, 2009; Ostrove et al., 2000; Reitzel et al., 2010). However, recent research has begun to address this limitation. These studies have mostly focused on

different segments of the Asian American population (Chen et al., 2010; de Castro et al., 2010; Leu et al., 2008; Nicklett & Burgard, 2009; Ostrove et al., 2000), and among Latina/os (Alegría et al., 2007; Franzini & Fernandez-Esquer, 2006; Nicklett & Burgard, 2009; Ostrove et al., 2000). Specifically, a lower subjective social status in the U.S. has been found to be associated with poor self-rated physical health among Asians in the U.S. (Chinese, Filipino, Vietnamese, and Other Asians; de Castro et al., 2010) and mood dysfunction among Asian immigrants (Leu et al., 2008). Likewise, lower subjective social status in one's community predicted mood dysfunction (i.e., a composite of anxiety and affective disorder symptoms) among Asian immigrants who arrived to the U.S. when they were 25 years or older (Leu et al., 2008). In this study, neither education nor income predicted mood dysfunction. In general, across the studies on Asian populations, the relations between subjective social status and health indicators remained significant even after accounting for objective measures of SES.

Among Latina/os, Franzini and Fernandez-Esquer (2006) found, among a sample of Mexican-origin individuals from low income neighborhoods in Texas, that subjective social status was associated with self-rated mental health and self-rated health, but not with self-rated physical health after adjusting for objective SES. That is, a lower subjective social status was associated with poor self-rated mental and global health after adjustment of objective SES measures. Extending this area of study one step further to include a national sample of Latina/os and to include diagnostic measures of mental health, Alegría et al. (2007) found that self-perceived high social standing in the US community was significantly associated with a decreased likelihood of reporting any anxiety, depressive, or substance use disorders in the past year. Also using diagnostic

criteria, results from Nicklett and Burgard's (2009) study showed that among Asian and Latino immigrants (as an aggregate group), a lower subjective social status in the U.S. and relative to one's country of origin were significantly associated with greater odds for occurrence of major depression. In general, it seems that among samples of Latina/os, subjective social status seems most predictive of mental health status, even after adjusting for covariates, including objective measures of SES.

In a multi-ethnic sample of pregnant women (Ostrove et al., 2000), Latinas compared to their White, Chinese and African American counterparts, ranked themselves significantly lower on the subjective social status in the U.S. ladder. However, when examining the relation between subjective social status and self-rated health, the findings showed that for White and Chinese American women, this relationship was significant even after adjusting for education and household income. However, for Latinas and African American women, this association became non-significant after the objective measures of SES were entered in the model (Ostrove et al., 2000). The authors suggest that for Latinas and African American women—who are more likely to live in poverty and in disadvantaged neighborhoods (Williams, 2002) compared to White and Chinese American women—increases in income may be more central to self-rated health than it would be for groups of women who already have higher levels of overall income. Thus, for the latter groups, perceptions of one's social status become relatively more important for health (Ostrove et al., 2000).

Overall, the findings of these studies suggest that, whether samples were drawn from the U.S. (Operario et al., 2004; Ostrove et al., 2000) or from another country (Singh-Manoux et al., 2003), were ethnic minorities (Alegría et al., 2007; Chen et al.,

2010; Leu et al., 2008; Nicklett & Burgard, 2009) or European American (Adler et al., 2000), nationally-representative (Operario et al., 2004; Wolff et al., 2010) or regional samples (Adler et al., 2000; Franzini & Fernandez-Esquer, 2006), one's perception of social standing relative to others plays an important role on the mental and physical health of adults. At the same time, findings across some of the studies point to the importance of considering the differential effects that one's subjective social status may have on different ethnic groups, depending on the outcome measured, and after adjustment of demographic, sociocultural, and other socioeconomic factors.

### **Social Marginality and Intersectionality: An Integrated Theoretical Framework**

Few research studies have synthesized the discrimination-SES-health relation within theoretically-driven frameworks to produce more integrated characterizations of social and economic experiences and their health consequences for Latina/os<sup>8</sup>. Concordantly, this dissertation draws from and brings together concepts and frameworks from different fields, including psychology, sociology, public health, as well as women's studies in order to better understand the effects of discrimination on health across different Latina/o subgroups.

Particularly, this dissertation integrates two specific frameworks—social marginality (Mahalingam, 2006; Parks, 1928) and intersectionality (Crenshaw, 1993). These two frameworks are derived from sociology and women's studies, respectively.<sup>9</sup> First, the social marginality framework describes why certain groups are and remain

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<sup>8</sup> Most research has primarily only been on the stress process, by focusing on discrimination and low SES as critical stressors for populations of color.

<sup>9</sup> Although today intersectionality is typically associated with women's studies, its origins are from legal studies (see Crenshaw, 1993).

marginal from the larger society. This framework has been applied mostly to understand the psychological experiences of migrant groups in their host country, particularly in its association with acculturation and assimilation processes (Goldberg, 1941; Park, 1928; Weisberger, 1992). However, recent scholarship has expanded it to include the experience of ethnic/racial minorities within the U.S. context as it relates to discrimination (Castillo, Conoley, & Brossart, 2004; Kim et al., 2006). An important element of this framework is that as Ecks and Sax (2005) suggested, marginality is maintained by a sharp sense of unequal power relations between groups.

On the other hand, the intersectionality framework pays particular attention to the simultaneous and interlocking effects of social identities (Collins, 1990), mainly on how they come to structure qualitatively different experiences for people occupying different social locations within any one social group. That is, intersectionality moves away from considering social identities as independent from one another. Importantly, intersectionality focuses on the heterogeneity of groups (e.g., women of color, men, etc.) and forces us to consider the larger historical and structural context of social groups.

Thus, although these two frameworks emerge from two different fields, they converge in that both consider the importance of power differentials within social groups. Indeed, Mahalingam (2007) noted these perspectives “[offer] a possibility...of studying the complexities of social categories without isolating the significance of the power dimensions of social location” (p. 60).

Significantly, the propose of this integrated framework is based on the premise that Latina/os are a heterogeneous group with *both* similar and different social experiences. On this basis, this integrated framework accounts for *intersectionalized*

identities and the centrality of power differentials associated with these different social identities in the context of social marginality (Mahalingam, 2006). Thereby, this approach allows room for challenging the notion of homogeneity among any one social group. Drawing attention to the uniqueness of the Latina/o experience, it is argued therefore that neither ethnicity nor gender alone (nor any other social category) is sufficient enough to understand and explicate the experience or impact of discrimination and SES among this group. Rather, understanding the complex and unique ways in which experiences of social marginality both similarly and differentially structure the health of Latina/o men and women across subethnic groups requires situating it within a larger historical and socio-cultural context that pays attention to issues of power and privilege associated with these respective social identities. Concordantly, research conducted through this integrated theoretical approach can contribute to a more robust and nuanced understanding of the effects of discrimination and social status among Latina/os in the U.S. context.

In the sections that follow I elaborate on both the social marginality and intersectionality frameworks in order to adequately lay the foundation for the significance of using these two approaches in the discrimination and health literatures, particularly as they concern the diverse U.S. Latina/o population.

### **Social Marginality**

At the time of diagnosis, I had to deal with an insensitive translator who was in a hurry and did not take the time to explain to me what cancer was. Then on my next visit, the personnel made me feel even worse, they looked at me as if I was a leper, maybe because of my poor clothing and make me feel very uncomfortable. I waited for hours, people who had appointment later than mine went in and

out...I approached the front desk person, but she was very rude and shouted at me to sit and wait, which I did without saying a thing. At the end of the day, she finally called me to tell me that the doctor had an emergency and had left and sent me to make another appointment. I asked her why she did not mention that earlier so I could go home, but all the response was that the doctor has more important things to do and that we as immigrants think that we are important but all that we are is a bunch of intruders and freeloaders. (Latina adult; Ashing-Giwa et al., 2004, p. 420).

We were never welcome. We would always get a look or we always get followed by certain police enforcements. “They’re all guys. Hmm, they could be gangbangers, you know? That’s targeted as, ‘Oh yeah, let’s follow these guys, make sure they’re not causing trouble’,” which makes you feel unwelcome, you know? (Latino adult male; Sharaievskia et al., 2010, p. 19)

The concept of social marginality, first articulated by sociologist Robert Park (1928), refers to being excluded—thereby marginal—from the social world. Social marginality can be experienced at multiple levels; for example, it can be because of the devalued status of a group (e.g., being an ethnic minority) or because of the low social status of a majority group (e.g., Mexicans in California; Mahalingam, 2007; Stonequist, 1937). Similarly, immigrant women of color may be marginalized and devalued because they are at the margins of society and of their ethnic group (Crenshaw, 1993; Mahalingam, 2006; Vasas, 2005). If the quotes above are any indication, Latina/os may come to feel marginal to U.S. society on the basis of many factors, including their ethnicity, race, gender, social class, lack of English proficiency, and so forth—partly as a function of negative interpersonal interactions across social contexts. In essence, different segments of any given population can experience this phenomenon to varying degrees and in various forms, based on their social positioning relative to others (Gist, 1967; Mahalingam, 2007) in any given context. Moreover, marginality is for the most part, a

fluid, relative concept (Cullen & Pretes, 2000)—it is never absolute (Ecks & Sax, 2005). In fact, Cullen and Pretes (2000) noted that the meaning of marginality changes as one moves from one reference point to another, and that marginality varies depending on *which* reference point is used.

Park (1928) particularly argued that social marginality was a result of certain groups of people (e.g., migrant groups) being excluded because of prejudice (Weisberger, 1992). He specifically noted that the “marginal man” is one who is “living and sharing ultimately in the cultural life and traditions of two distinct people, never quite willing to break, even if he were permitted to do so, with his past and his traditions, and not quite accepted because of racial prejudice”<sup>10</sup> (Park, 1928, p. 892). This analysis is consistent with the definition of marginality brought forth by Hall, Stevens, and Meleis (1994), which they describe as being a condition whereby individuals are “peripheralized” from the center of society because of their status, identities, and experiences. Indeed, Hall and colleagues viewed marginalization in relation to different forms of oppression (e.g., racial, gender, political, economic). At the same time, Grove and Zwi (2006) articulated the “person or group being ‘othered’ experiences this as a process of marginalization, disempowerment and social exclusion” (p. 1933). It follows, then, that marginalized persons (i.e., individuals or groups) are those who experience varying degrees of social discrimination (i.e., either through exclusion, othering, differential treatment, etc.) and low social standing relative to others—never quite being completely part of the social

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<sup>10</sup> It has been argued that social marginality also includes exclusion based on factors other than just racial prejudice and racial discrimination. Social marginality can also be experienced because of other social dimensions. For example, as noted in earlier paragraphs, immigrant women can face social marginality based on ethnicity, race, gender, etc.

fabric—given the status associated with their particular social identities in a given context.

Although social marginality has been conceptualized and measured in several different ways, in this dissertation, social marginality is conceptualized as self-reported everyday discrimination and subjective social status in the U.S. That is, emphasis is placed on how individuals (e.g., Latina/os) who are by many measures socially marginal to U.S. society come to experience differential (unfair) treatment. I argue, similar to many of the aforementioned scholars, that the disproportionate “exposure” to unfair treatment is bound by subjective feelings of occupying a lower social status; thus, resulting in an individual or group of people feeling socially marginal in society. For example, both everyday discrimination and subjective social status implicitly bear in common the assumption that one group of persons is more advantaged/privileged than the other—either through being accorded less differential treatment or through occupying a higher social status. In fact, Hughes (1949) brought attention to the way in which marginality can be thought of as a hierarchical concept—that is, whereby marginality can be defined from one’s understanding of their relative status within the social hierarchy. This can be illustrated by a Latina participant’s response from Ashing-Giwa and colleagues’ (2004) qualitative study when she noted, “When I went to the doctor, a staff member was very rude to me...I am sure that my ignorance, legal status and also color of my skin had to do with her rejection” (p. 419). Indeed, Mahalingam (2007) and Wright and Wright (1972) assert that the relational interplay between marginalized groups and the dominant group (whomever that dominant group may be in a particular context) can

provide a greater understanding of the complex ways in which marginalized individuals interpret their experiences in relation to others.

Significantly, Park (1928) argued that the inability of marginalized social groups to become part of the dominant group was one central component of social marginality, maintaining that it was the inability of marginalized individuals to integrate with the dominant group or culture that resulted in vulnerability to distress and “inner turmoil.” Elaborating on Park’s theory, Stonequist (1937) poignantly described the psychological costs of embodying a marginal status when he wrote of the “marginal man”<sup>11</sup> experiencing what W.E.B. DuBois (1903/1994) termed “double-consciousness”—a “sense of always looking at one’s self through the eyes of others, of measuring one’s soul by the tape of a world that looks on in...contempt” (p. 364). That is, embodying a marginalized status contributes to a heightened awareness of the interaction between the individual and their social context (Mahalingam, 2007). For these reasons, it is argued that everyday forms of discrimination against Latina/os can result in a heightened awareness of where each group “resides” in the social hierarchy.

The concept of marginality is argued to be particularly important to the study of health disparities because residing at the margins of society means such individuals are exposed to environments and experiences that can potentially increase susceptibility to adverse health conditions, especially among already socially vulnerable groups (see Vasas, 2005 for a discussion on marginality as a process and its relation to health disparities). Likewise, Viruell-Fuentes (2007) asserts “othering processes” including discrimination, may serve as potential pathways by which the health of Latina/os may be

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<sup>11</sup> This term was originally coined by Robert Park (1928) in “Human Migration and the Marginal Man,” *American Journal of Sociology*, 33(6), 881-893.

affected. For example, marginalization is associated with high levels of stress (Berry et al., 1987; Castillo et al., 2004; Kim et al., 2006). A marginalized social status is theorized to be stressful because of the conflict that results from situational and macro-level factors—such as being part of an ethnic or racial minority group, poverty, disempowerment—among other circumstances (Whitehead, Peterson, & Kaljee, 1994 as cited in Del Pilar & Udasco, 2004). In fact, Fiske (2010) so poignantly asked, “What could possibly be beneficial about long-term subordination?” (p. 967).

Notably, Antonovsky (1956) concluded that group members of a cultural or racial minority might respond differently to a number of situations involved in social marginality. For example, research on social marginality notes that power differentials associated with different social identities play a central role in how marginalized groups understand and negotiate their social experiences (Mahalingam et al., 2009; Park, 1928). The way in which marginalized group members interpret these experiences may shape their paths to health outcomes in unique ways, as can the unequal access to resources that are embedded within power differentials across social groups (Ecks & Sax, 2005; Mahalingam, 2007). As such, the utility of this concept is that it allows for the examination of psychological and health consequences of everyday discrimination and subjective social status in the U.S. among diverse ethnic groups, while being sensitive to the complexities and power differentials *within* and *between* the groups comprised in an aggregated ethnic category.

As Vasas (2005) argues, “the concept of marginalization provides an innovative perspective on health disparities, focusing on the social inequities from which disparities result, rather than reducing them to functions of race, culture, gender, or other variables

taken out of their social context” (p. 200). In effect, conceptualizing everyday discrimination and subjective social status in the U.S. as forms of social marginality can help elucidate how marginalization is embodied and consequently influences the health status of Latina/os, whose pan-ethnic category includes groups occupying different social locations. As a sociological concept, social marginality facilitates psychologists’ and public health researchers’ ability to interpret and make clearer how health consequences partly arising from individual-level discrimination and low social status are inextricably bounded in social structures and power differentials, rather than merely isolating the effects of marginality from larger social processes.

### **Intersectionality**

Central to the tenets of this study are the intersections of gender and ethnicity, and the mutually constitutive ways in which they shape the course of illness among Latina/os in the context of social marginality. Crenshaw (1993) coined the term *intersectionality*, which is often used to describe the intersections of ethnicity, class, sexuality, ability, language, and so forth. Moreover, Stewart and McDermott (2004) provide the three tenets of the intersectionality perspective: (a) no social group is homogenous; (b) people must be located in terms of social structures that capture the power relations implied by these structures; and (c) there are unique, non-additive effects of identifying with more than one social group (p. 326). Indeed, feminist scholars have long argued that no one social identity alone is sufficient to understand and explain the pervasive and interlocking forces of structural inequalities (Collins, 1990; Crenshaw, 1993; Reid & Comas-Diaz, 1990). However, given it may be impractical to explore a multitude of social identities at

the same time in a single study, we should incorporate those social identities that we think might intersect with most relevance with what it is we are examining (Stewart & McDermott, 2004).

Interestingly, health research conducted through an intersectional perspective continues to remain rather neglected, despite that several health scholars have made calls for conducting public health research from this approach (Hankivsky & Christoffersen, 2008; Jackson & Williams, 2006; Krieger, Rowley, Herman et al., 1993; Schulz & Mullings, 2006; Weber & Parra-Medina, 2003; Zambrana & Dill, 2006). On the other hand, a growing body of psychological research has now considered the use of intersectionality as a framework for understanding a range of phenomena (see Cole, 2009 for a discussion of intersectionality in psychology). Indeed, an intersectional approach is an especially useful framework for examining and understanding the intertwining effects of gender and ethnicity in the experience of social marginality, and consequently, in shaping health. More specifically, this framework allows for the examination of how the process by which Latina/os are marginalized and impacted by it may be segmented along gender and ethnic lines (among other social identities). For example, Schwartz and Meyer (2010) noted, “that intersections of group characteristics, such as poor women, form categories whose social meaning cannot be captured by disparate elements of the intersection” (p. 1117). That is, the structured interconnections among social identities can create unique axes of difference, and may therefore shape exposure to discrimination and the impact of it in complex ways.

Accordingly, rather than merely comparing the effects of everyday discrimination between Latina/o men and women, gender and ethnicity should be treated as focal

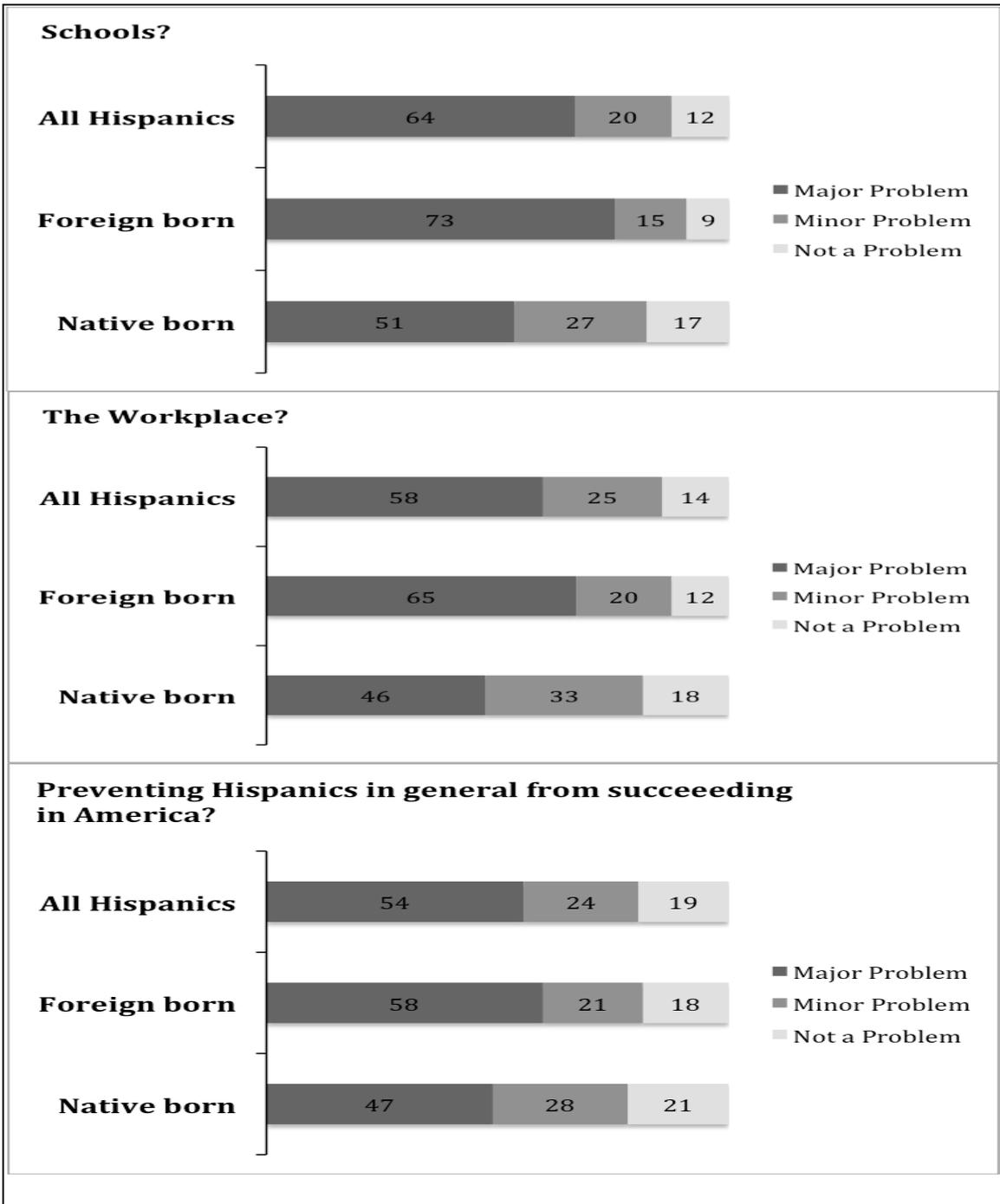
elements of the experience of discrimination—that is, these “variables” should be used as conceptually rich tools that can provide greater insight to complex processes. In essence, one of the core arguments for using an intersectional approach is because it is believed to help explicate how constructions of multiple systems of inequalities can have pernicious consequences on the health of Latina/os, who *simultaneously* embody these multiple identities at different social locations.

Indeed, Crenshaw (1993) noted that the way in which an individual experiences membership in a particular group (e.g., Latina/os) qualitatively differs as a function of other group memberships (e.g., gender, class). An illustration of this point can be gleaned from Borrell and colleagues’ (2006) study, which found that self-reported racial discrimination related to poor mental and physical health. However, the associations between discrimination and health outcomes were stronger for women. Moreover, among women only, worse mental health was associated with perceived discrimination among those with low-income as compared to those with high income. In view of that, these findings point to the relative health costs incurred as a function of discrimination among poor women of color when compared to their male and more socioeconomically advantaged female counterparts. Hence, we cannot assume that discrimination is experienced in the same way among men and women, or even within gender groups. Research that systematically examines gender at the intersection of other social categories and that pays attention to issues of power asymmetries suggest that women in multiple marginalized positions (e.g., immigrant women, poor women of color) face unique predicaments (Mahalingam, 2006; Reid & Comas-Diaz, 1990) that may uniquely contribute to concomitant negative health effects.

Therefore, it makes sense that when comparing any one group of Latina/os' health outcomes, we take into account the contexts in which these groups are embedded; for example, we would consider the relative level of power and privilege associated with holding membership in any one of their respective groups in a given context (e.g., Cuban males in Miami versus a Honduran male versus a Cuban woman in Miami) and its effects on the outcome(s). As noted earlier in the social marginality perspective, rather than attributing responses and consequences to discrimination as isolated and based solely on cultural or individual characteristics, we should consider the influence of different social structures (e.g., social, economic) that may put some groups relative to others at a heightened risk for ill health when faced with discrimination.

Despite some researchers' observations that examining how social identities interact and influence health represents a fruitful avenue for quantitative study (Viruell-Fuentes, 2007), only a few studies have examined how ethnicity and gender simultaneously shape health outcomes in the context of the discrimination experience among Latina/os (Finch et al., 2000; Flores et al., 2008; Krieger et al., 2005). Therefore, this section calls attention to the importance of correcting the imbalance that currently exists in the discrimination literature among Latina/os. Research in this area may help address the assumptions that currently undergird discrimination research on Latina/os, and may in turn contribute to a better understanding of how dimensions of inequality are embodied and come to condition health (Krieger, 1999) across social locations. At the same time, Cole (2009) asserted that attention be placed on who is included in a particular social group, on the role that inequality plays in the lives of the members of this group, and on the extent to which commonalities exist across differences.

**Figure 1. Perceptions of Discrimination Against Latinos (%)**

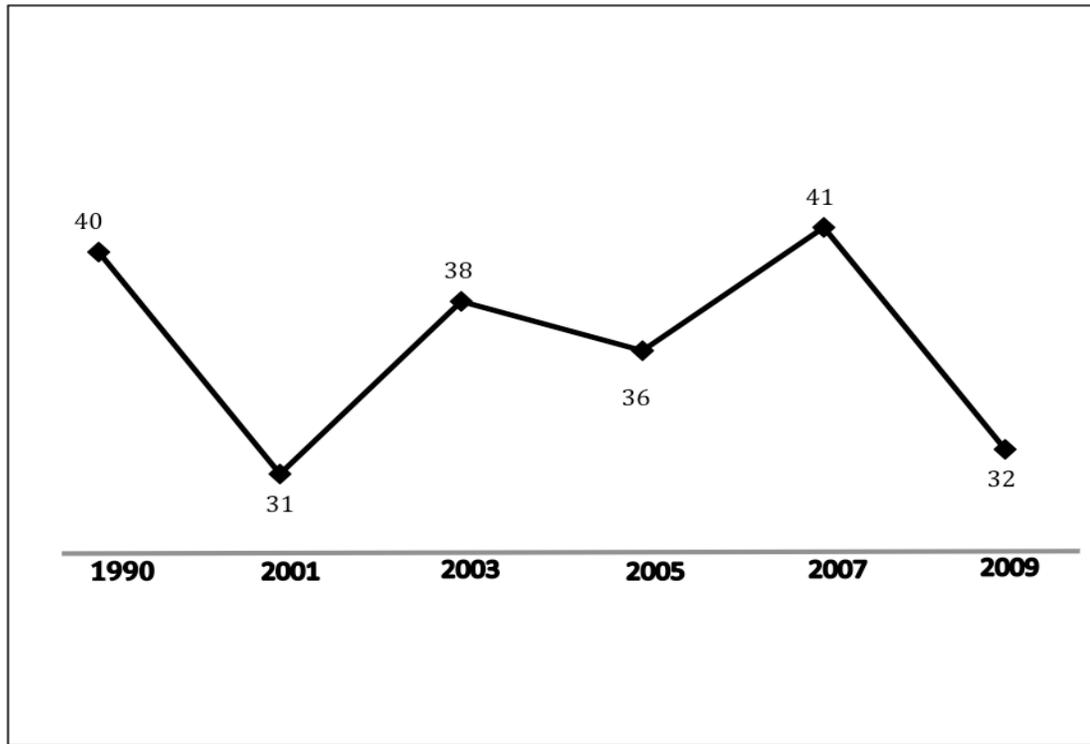


**Note.** Native born includes Puerto Ricans. Responses of "don't know" not shown.

Question: In general, do you think discrimination against Hispanics is a major problem, minor problem, or not a problem in: Schools? The workplace? Preventing Hispanics in general from succeeding in America?

Source: Adapted from Pew Hispanic Center. *2007 National Survey of Latinos: As Illegal Immigration Issue Heats Up, Hispanics Feel a Chill*. Washington, DC, December 2007.

**Figure 2. Experiences with Discrimination (% Saying Yes), 1990-2009**

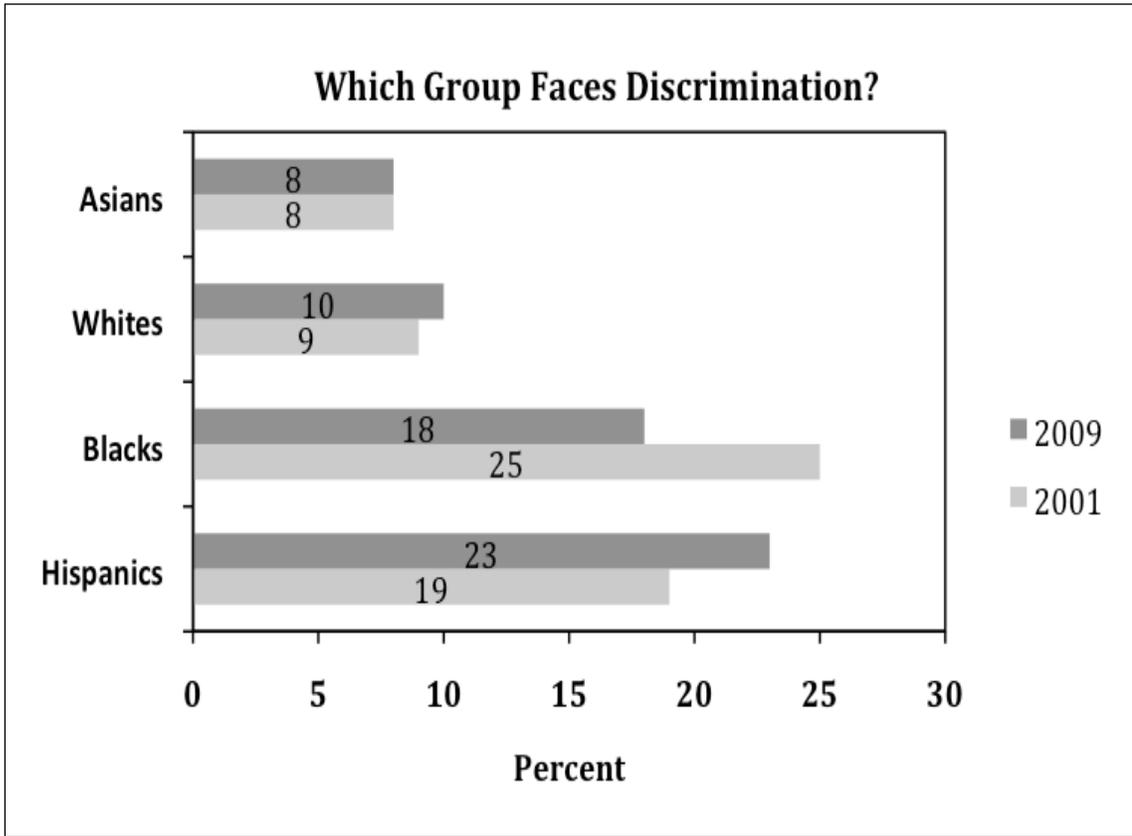


**Note.** N=2,012 for 2009; N=2,003 for 2007; N=2,000 for 2006; N=2,288 for 2004; N=2,929 for 2002; N=2,417 for 1999.

Question: During the last 5 years, have you, a family member, or close friend experienced discrimination because of your racial or ethnic background?

Source: Adapted from Pew Hispanic Center, 2009, 2007, 2006, 2004, 2002 National Survey of Latinos and 1999 Washington Post, Kaiser Family Foundation and Harvard University National Survey of Latinos.

**Figure 3. Percent of Americans Saying Each Racial or Ethnic Group is Discriminated Against “A Lot” in Society: 2001 and 2009**



**Note.** N=2,884 for 2009; N= 1,709 for 2001.

Source: Adapted from Pew Social & Demographic Trends, "A year after Obama's election, Blacks Upbeat about Black Progress, Prospects," January 2010.

**Table 1. Selected Census 2000 Socioeconomic Characteristics for non-Hispanic whites, Hispanics or Latinos, and Hispanic or Latino by Gender Subgroup in the United States**

	Socioeconomic Characteristic						
	College Education	Poverty Rate	Unemployed	Out of Labor Force	Professional Occupation	Female-headed Household	Affluent
Non-Hispanic White <sup>a</sup>	26.06%	9.14%	1.60%	7.00%	35.61%	8.22%	30.44%
Hispanic or Latino <sup>b</sup>	10.44%	22.63%	2.93%	13.09%	18.06%	16.53%	14.23%
<b>Hispanic/Latino by Gender Subgroup<sup>c</sup></b>							
Cuban Men	10.66%	6.62%	1.96%	10.63%	16.40%	---	---
Cuban Women	10.49%	7.93%	1.99%	13.83%	15.26%	---	---
Puerto Rican Men	5.47%	11.19%	3.18%	13.90%	8.50%	---	---
Puerto Rican Women	7.02%	14.65%	3.12%	19.84%	9.56%	---	---
Mexican Men	3.76%	11.61%	3.09%	13.17%	7.06%	---	---
Mexican Women	3.71%	11.90%	2.63%	19.42%	7.88%	---	---
Other Latino Men	6.58%	9.20%	2.67%	13.03%	9.73%	---	---
Other Latino Women	6.98%	11.45%	2.97%	19.22%	10.78%	---	---

**Note.** Source: U.S. Census Bureau 2000 Summary File 4 (SF4)-Sample Data

--- Data not available.

<sup>a</sup>Percentages were obtained by dividing by the total Non-Hispanic White population; <sup>b</sup>Percentages were obtained by dividing by the total Hispanic or Latino population; <sup>c</sup>Percentages were obtained by dividing from their respective group population (e.g., Cuban men and Cuban women from among the total Cuban population in their table universe).

Poverty= Below poverty level, Table PCT142, Poverty status in 1999 by sex by age (for whom poverty status is determined)

College Education= Those with a bachelor's degree or higher, Table PCT64, Sex by educational attainment for the population 25 years and over

Professional Occupation= Management, professional, and related occupations; Table PCT86, Sex by Occupation for the employed civilian population 16 years and over

Out of Labor Force= Percentage does not include persons 65 and over; Unemployed, Table PCT79, Sex by age by employment status for the population 16 years and over

Female headed household= Female headed household with own children under 18 years of age, Table PCT29, Family type by presence of related children under 18 years by age of related children

Affluent= Income equals to \$75,000 and higher, Table PCT112, Family Income in 1999

**Table 2. Frequencies of Feelings of Sadness, Hopelessness, Worthlessness, or that Everything is an Effort Among Persons 18 years of Age and Over, by Selected Characteristics, United States, 2006**

Selected characteristic	Selected mental health characteristics <sup>1</sup>							
	Sadness		Hopelessness		Worthlessness		Everything is an effort	
	All or most of the time	Some of the time	All or most of the time	Some of the time	All or most of the time	Some of the time	All or most of the time	Some of the time
Percent <sup>2</sup> (standard error)								
<b>Sex and ethnicity</b>								
Hispanic or Latino, male	1.7 (0.32)	8.7 (0.87)	1.3 (0.37)	3.6 (0.52)	1.1 (0.29)	2.5 (0.51)	3.9 (0.53)	6.3 (0.71)
Hispanic or Latina, female	4.3 (0.51)	12.4 (0.86)	3.0 (0.42)	6.1 (0.68)	2.3 (0.35)	4.3 (0.52)	6.0 (0.62)	8.4 (0.68)
<b>Not Hispanic or Latino:</b>								
White, single race, male	2.2 (0.21)	5.4 (0.32)	1.5 (0.17)	3.0 (0.24)	1.6 (0.18)	2.4 (0.22)	4.2 (0.30)	7.3 (0.39)
White, single race, female	3.3 (0.23)	8.6 (0.39)	2.2 (0.20)	3.7 (0.24)	1.8 (0.18)	3.8 (0.25)	5.4 (0.32)	9.4 (0.41)
Black or African American, single race, male	4.3 (0.78)	8.2 (0.85)	2.4 (0.65)	4.0 (0.67)	1.5 (0.39)	3.5 (0.70)	7.0 (0.79)	8.3 (0.94)
Black or African American, single race, female	4.4 (0.49)	11.3 (0.79)	2.3 (0.33)	4.7 (0.50)	2.2 (0.35)	3.4 (0.43)	7.8 (0.67)	10.1 (0.74)

**Note.** Source: Adapted from U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, "Summary Health Statistics for U.S. Adults: National Health Interview Survey, 2006." Vital and Health Statistics. Series 10, No. 235, Table 14, December 2007.

<sup>1</sup>In four separate questions, respondents were asked how often in the past 30 days they felt: so sad that nothing could cheer them up, hopeless, worthless, or that everything was an effort. Respondents could choose from among five response categories: "All of the time," "Most of the time," "Some of the time," "A little of the time," or "None of the time." For the table, "All" and "Most" are combined, and "Some" is shown separately.

<sup>2</sup>Unknowns for the columns are not included in the denominators when calculating percentages. Percentages in the table are rounded.

Estimates are age adjusted to the projected 2000 U.S. population as the standard population using four age groups: 18-44, 45-64 years, 65-74 years, and 75 years and over.

DATA SOURCE: CDC/NCHS, National Health Interview Survey, 2006. Estimates are based on household interviews of a sample of the civilian noninstitutionalized population.

**Table 3. Age-adjusted Percent Distributions (with standard errors) of Respondent-assessed Health Status Among Persons 18 years of Age and Over, by Selected Characteristics: United States, 2006**

Selected characteristic	Current health status among persons 18 years of age and over <sup>1</sup>		
	Excellent or very Good	Good	Fair or poor
<b>Sex and ethnicity</b>	Percent distribution <sup>2</sup> (standard error)		
Hispanic or Latino, male	55.2 (1.47)	28.8 (1.39)	16.0 (0.99)
Hispanic or Latina, female	48.7 (1.33)	33.1 (1.30)	18.2 (1.04)
<b>Not Hispanic or Latino:</b>			
White, single race, male	65.0 (0.69)	24.7 (0.61)	10.3 (0.42)
White, single race, female	64.2 (0.67)	24.9 (0.57)	10.9 (0.40)
Black or African American, single race, male	54.8 (1.50)	27.7 (1.41)	17.5 (1.11)
Black or African American, single race, female	47.7 (1.20)	31.4 (1.19)	20.9 (0.98)

**Note.** Source: Adapted from U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, "Summary Health Statistics for U.S. Adults: National Health Interview Survey, 2006." Vital and Health Statistics. Series 10, No. 235, Table 20, December 2007.

<sup>1</sup>The data in the table are based on a question in the survey that asked respondents, "Would you say your health in general was excellent, very good, good, fair, or poor?" This information was obtained during a part of the interview that allowed proxy responses, such that a knowledgeable adult family member could respond on behalf of adults not taking part in the interview (however, the sample in this table is based on the reported health status for the sample adult only. "Excellent" and "very good" are combined in this table, as are "fair" and "poor".

<sup>2</sup>Unknowns for the column were not included in the denominators when calculating percentages. Percentages may not add to totals because of rounding. Estimates are age adjusted to the projected 2000 U.S. population as the standard population using four age groups: 18-44, 45-64 years, 65-74 years, and 75 years and over.

DATA SOURCE: CDC/NCHS, National Health Interview Survey, 2006. Estimates are based on household interviews of a sample of the civilian noninstitutionalized population.

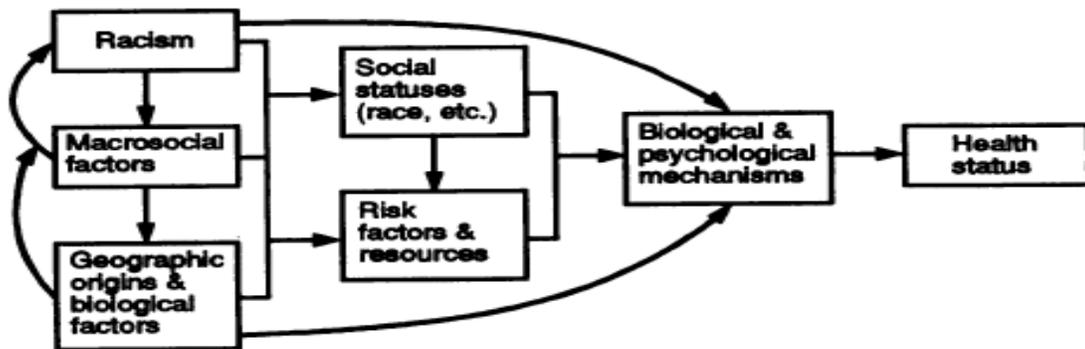
**CHAPTER III**  
**PRESENT STUDY**  
**Conceptual Model**

A central aim of the present study is to empirically test the pathways by which individual-level discrimination (i.e., everyday discrimination) affects the health status of Latina/o adults. I draw from Williams and colleagues' (1994) framework for understanding the complex relationships between race and health (see Figure 4). This model focuses on individual-level as well as macrosocial factors, and how these factors together affect health through intermediary mechanisms (Williams et al., 1994). This model was chosen over other models that also depict relations between various social determinants of health, including forms of social marginality (e.g., racism, segregation, social isolation, othering, etc.), since it explicitly incorporates and focuses on the central role racism plays as a determinant of health status. Important to note is that included in the construct of racism is discrimination—occurring at both the level of the individual and the level of institutions (Williams et al., 1994). That is, Williams and Mohammed (2009) noted that perceived racial or ethnic discrimination is one aspect of racism, and has received increasing attention in the health literature, given it is a type of stress that can have consequences for health outcomes and for understanding health disparities. Significantly, the scholars of this conceptual model note:

the model suggests that racism can affect the health status in a number of ways. It can transform social statuses, determine the degree of exposure to risk factors and resources, and directly affect health through its effects on

psychological and physiological functioning (p. 29).

Figure 4. A Framework for Understanding the Relationship between Race and Health



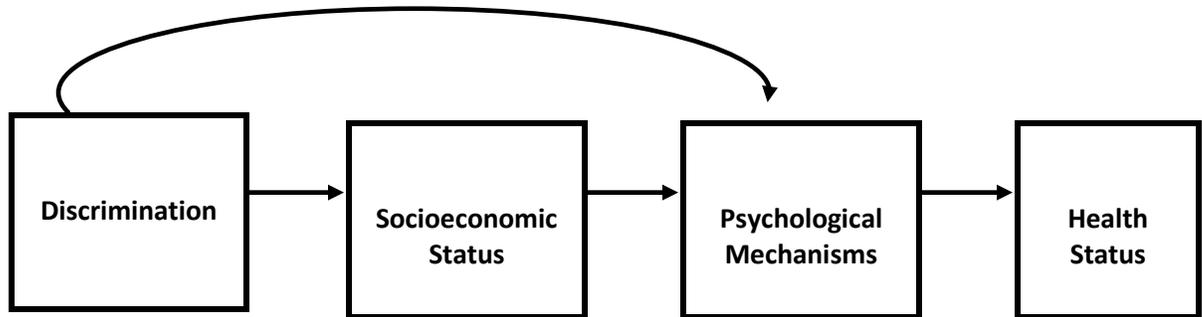
**Note.** Source: Williams et al. (1994). The concept of race and health status in America. *Public Health Reports*, 109(1), 26-41. Racism= racial ideology (categorization or ranking), prejudice, or discrimination (individual or institutional); Biological factors= morphological, physiological, biochemical, or genetic factors; Social status= race or ethnicity, socioeconomic status, sex, or social roles, geographic location, or age; Risk factors and resources= health, stress, medical care, social ties, or psychological, cultural, or religious factors. Used with permission.

### Mechanisms in the Postulated Model

For purposes of this dissertation, I use an adapted and simplified part of the original model proposed by Williams and colleagues, so as to specifically understand the mechanisms linking individual-level discrimination and health status (see Figure 5). In particular, I focus on modeling the path from individual-level discrimination to socioeconomic status, to psychological mechanisms, and ultimately to health status<sup>12</sup>. This simplified model does not include all other pathways noted in the original theoretical framework, nor does it incorporate feedback loops or interactions between variables. Notwithstanding, I briefly discuss the reasons for including certain mechanisms in the postulated proposed conceptual model.

<sup>12</sup> I do not include biological mechanisms in the tested model, as biological markers were not available in the data set used for this study.

**Figure 5. A Partial Model for Understanding the Relationship between Discrimination and Health**



**Note.** Partial model derived from Williams et al. (1994). Used with permission.

First, I include everyday discrimination, which has been conceptualized in the literature as chronic unfair treatment. This measure is used to capture the construct of “racism” in the model, given that Williams et al. noted racism also encompasses discrimination, since “racism is an ideology that categorizes and ranks human groups, with some being inferior to others” (Williams et al., 1994, p. 29). Although racism and discrimination represent two similar constructs, everyday discrimination is not solely due to differential treatment based on race or ethnicity. However, it has been suggested and found to be an important factor that disproportionately affects the health of ethnic and racial minority populations, similarly to what has been found for racism. It is beyond the scope of this dissertation to discuss fully the distinctions between racism and discrimination. However, where Latina/os are concerned, who are comprised of both immigrants and non-immigrants, it is less likely they will mostly only attribute differential treatment to race or ethnicity<sup>13</sup>. As such, a focus on everyday discrimination

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<sup>13</sup> The National Survey of Latinos conducted by the Pew Hispanic Center in 2007 found that when asked to choose among four possible causes of discrimination against Hispanics, nearly half (46%) of all

seems to be most appropriate for the present study.

Moreover, Williams et al. (1994) did not advocate for any one specific measure of socioeconomic status, since they noted that most measures of SES (e.g., education, income, and/or occupational status) do not perfectly measure this construct as they only capture parts of social stratification, and are not equivalent across racial and ethnic groups. In fact, these scholars suggest that the use of alternative measures of SES would be an important addition to future work. As such, I include *subjective* social status as opposed to more traditional measures of socioeconomic status, given that the predictive power of this measure has tended to be stronger than “crude” measures of SES (Adler et al., 2000) and because “perceptions have importance in their own right as they represent how people see their position in society and may indicate the stressors present in their lives” (Gee et al., 2006, p. 1826). Indeed, similar to social constructs such as race/ethnicity and gender, socioeconomic status has both sociological and psychological dimensions (AAP, 2000).

Additionally, I focus on psychological distress as one of the intermediary psychological factors, given that discrimination and subjective social status have been found to robustly predict psychological distress across a number of ethnic and racial groups. Likewise, psychological distress (and depressive symptoms/depression) has been shown to be an important and proximal mechanism by which discrimination influences physical health.

Lastly, I include self-rated physical health status as opposed to specific health conditions since the purpose of this study is not to estimate the relation between

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respondents said language was the biggest cause; 22% said immigration status; 16% said income and education; and 11% said skin color.

discrimination and specific health outcomes, as the pathways may be different for different health conditions. I focus on the global assessment of a person's physical health in order to possibly depict what the relation between discrimination and health status *in general* may approximate for a population-based sample of Latina/os. Further, Idler and Benyami (1997) note this measure better captures overall health as opposed to specific physical health conditions or status, and thus, may have greater universality. Likewise, this is an important measure of both current and future health.

Importantly, I focus not only on direct relations between discrimination and health (as has been the typical nature in the discrimination literature), but also on the indirect effects that discrimination may have on health, as postulated in the original model. Specifically, I test two specific indirect pathways linking discrimination to self-rated physical health hypothesized in the original model. First, I examine whether discrimination affects physical health through two mechanisms: socioeconomic status and psychological factors. Second, I examine whether discrimination indirectly affects health via psychological factors alone, as described in the original model (see Figure 5). That is, I examine the mediating effect of psychological mechanisms (e.g., psychological distress) on the discrimination-health relation, independent of socioeconomic status.

Additionally, my dissertation integrates the model proposed by Williams and colleagues' (1994) within the social marginality and intersectionality perspectives to examine how everyday discrimination affects health at the intersections of gender and ethnicity, since Williams et al. also noted the importance of multiple vulnerability. That is, they noted "groups occupying multiple social categories may have especially poor health status...since the effects of occupying multiple statuses may lead to cumulative

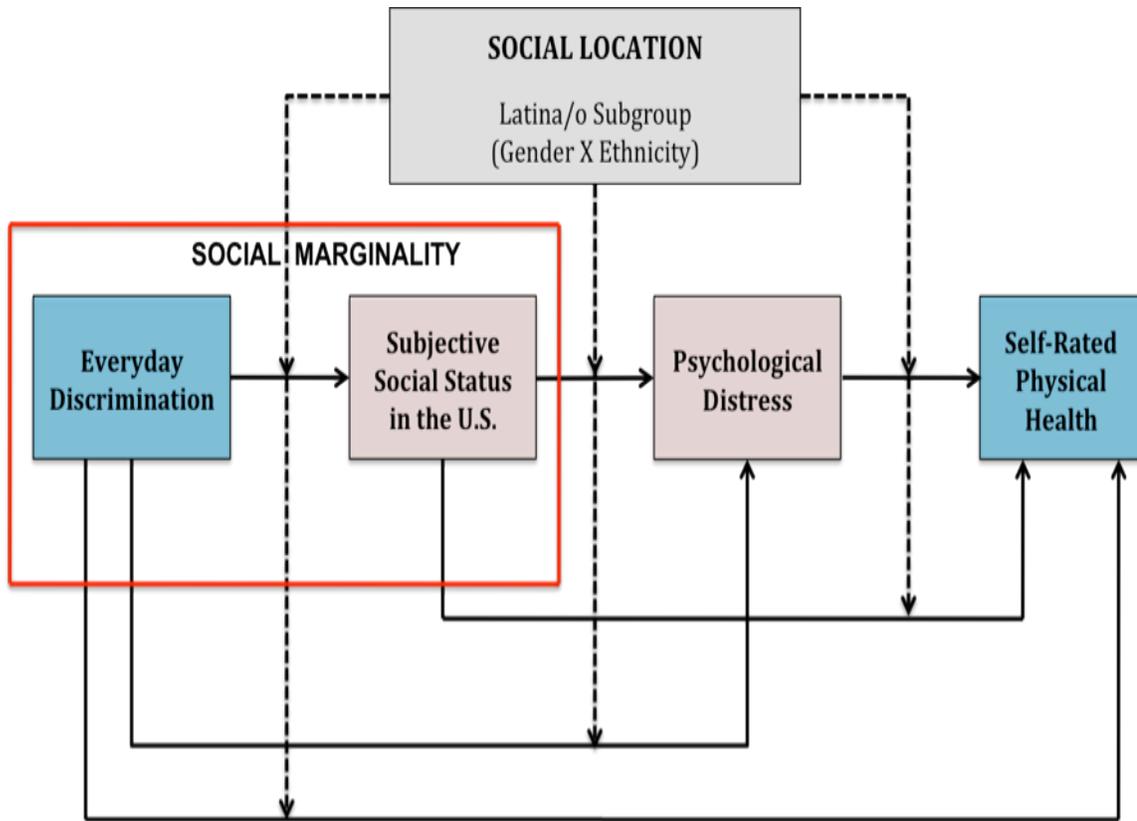
vulnerability that is additive or even multiplicative” (p. 31). Moreover, these scholars suggest paying attention to heterogeneity between and within racial and ethnic groups, given that failing to attend to variations in health indicators, as they note, can prevent researchers from identifying health needs of specific groups (Williams et al., 1994). Likewise, other researchers (Brondolo, Gallo, & Myers, 2009) note that “new research has highlighted the importance of examining variations within groups to understand how factors such as racism may disproportionately affect the group and also account for variations in health within the group” (p. 3) by examining ethnicity, and I would argue gender as well, as moderating factors in the relationship between racism and health outcomes. Consequently, this dissertation also examines how gender and ethnicity together moderate relations in the overall proposed model.

Although prior studies have found empirical evidence for many of the direct relations in the partial model (i.e., Figure 5); that is, for specific links in this partial model; to date (to my knowledge), no one has empirically tested these relations together, nor have they attempted to examine how gender and ethnicity together may moderate the specific parameters in this model<sup>14</sup>. Accordingly, Figure 6 depicts an adapted proposed conceptual model for understanding the relationship between social marginality (as noted earlier, conceptualized as everyday discrimination and subjective social status in the U.S.) and health status among diverse groups of Latina/os.

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<sup>14</sup> Most research conducted examining moderating effects in the discrimination-health relation have mostly been on the moderating effects of gender on the discrimination and mental health relation. Further, as was noted in the literature review, most of this work has focused on non-Latina/os, or with Latina/os as an aggregated group, rather than across subethnicities.

**Figure 6. Adapted Proposed Conceptual Model for Understanding the Relationship between Social Marginality and Health among Latina/os**



**Note.** Adapted model includes direct and indirect effects. Social marginality is conceptualized as involving experiences of everyday discrimination and an individual’s subjective social status in the U.S. Dashed arrows from “Social Location” represent hypothesized moderating effects for each of the parameters in the model. Though not represented in the model, socio-demographic factors are also expected to directly influence the constructs represented in the model. Model modified from Williams et al. (1994).

### Research Questions and Hypotheses

Informed by the literature, the proposed study addresses the following research questions.

## **Group Comparisons on Social Marginality Constructs**

*Research Question 1a & 1b: Do Latina/o subgroups (at the intersections of gender and ethnicity) differ on types of social marginality (everyday discrimination and subjective social status)?*

Major and colleagues (2002) note that:

In all societies, the social categories that organize social relations (e.g., gender, occupation, ethnicity) are also status-valued categories. That is, people who belong to one category (e.g., men, professionals, ethnic majorities) are widely perceived to be more socially worthy and competent than are those who belong to another category (e.g., women, laborers, ethnic minorities). They also typically hold more power. Individuals who belong to lower status categories are more likely to be exposed to negative stereotypes, prejudice, and discrimination in their daily experiences than are members of high-status categories. Even members of high-status categories, however, can be targets of discrimination in some contexts (p. 270).

Indeed, discrimination cuts across all social identities. That is, reports of discrimination vary by race, national origin, nativity, education level, and gender, among other sociodemographic factors. For example, in a recent study of the prevalence and correlates of discrimination among a nationally representative sample of Latina/os in the U.S., it was found that Cubans, in comparison to other Latinos (Mexicans, Puerto Ricans, and Other Latinos), were likely to report low perceived discrimination (Pérez et al., 2008). Likewise, Latino males compared to Latino females were more likely to report higher levels of perceived discrimination (Pérez et al., 2008). However, examining differences in reports of discrimination only by gender or ethnicity—as opposed to gender at the intersection of ethnicity, for example, could easily dismiss and obscure potential gender differences within and across subethnic groups. Provided that Latino males and Puerto Ricans report higher levels of discrimination compared to their female and Cuban counterparts, respectively, it is probable that these two groups lie at each end

of the discrimination continuum. That is, it is probable that Puerto Rican men will report the highest levels of discrimination and Cuban women the least.

On the other hand, immigrant scholars Portes and Rumbaut (2001) note that:

immigrants differ along three fundamental dimensions: 1) their individual features, including their age, education, occupational skills, wealth, and knowledge of English; 2) the social environment that receives them, including the policies of the host government, the attitudes of the native population, and the presence and size of a co-ethnic community; and 3) their family structure (p. 46),

and that these dimensions will shape the course of adaptation of immigrant groups. For example, Cubans had relatively high socioeconomic levels when migrating to the U.S., have had (for the most part) a positive mode of incorporation into the U.S., and have benefitted from strong and cohesive community resources. In fact, they have not been as historically oppressed as most other Latina/o groups (with the exception of Afro-Cubans who mostly made up the 1980s Mariel boatlift population; Fernandez-Kelly & Schauflier, 1994; Portes & Bach, 1985; Portes & Rumbaut, 2001). The advantageous human and social capital, sending context and context of settlement for first and second-wave Cuban immigrants thus allowed these groups of Cubans to have had a more successful cultural transition, social incorporation, and immigrant resettlement (Portes & Rumbaut, 2001; Portes & Stepick, 1993). On the other hand, Central Americans and Dominicans for example, have had negative and neutral modes of incorporation to the U.S., respectively; have had prejudiced reception accorded to them, and in turn, have had downward mobility. By contrast, Puerto Ricans, although not immigrants per se, migrated mostly to the Northeastern part of the U.S. during non-favorable circumstances, have been victims of much public discrimination, and have settled in mostly metropolitan communities with

high levels of residential segregation (Santiago, 1992). As such, these differing experiences among Latino subethnic groups can produce differential social experiences.

Given that Cubans have been considered the “model minorities” of the Latina/o population, with this group evidencing the lowest levels of poverty and discrimination, as well as the highest levels of education, household income, and political and social power in South Florida (Stepick & Stepick, 2009), it is reasonable to believe they will perceive themselves as occupying a higher social status in the U.S. compared to other Latina/o subgroups (Portes & Rumbaut, 2001; Portes & Stepick, 1993). However, given that Cuban males are accorded more privilege than their female counterparts—as an extension of their privileged male status—it could be that their perceptions of social status in the U.S. is higher than that of Cuban women’s social status.

Conversely and paradoxically, Puerto Ricans, as noted in the previous paragraphs, have had to contend with harsh social and economic realities in the U.S. mainland, despite their U.S. citizenship status (Levine, 1987; Massey, 1990). Indeed, some scholars have noted that “Puerto Ricans are between a rock and a hard place” given they do not experience issues related to undocumented status that many other Latina/o subgroups contend with, but yet “had particularly unfortunate luck in terms of the timing and location of their immigration, and racialized antagonism and stigma from American society” (Smith, 2008, p. 37). Not surprisingly, all these factors have contributed to Puerto Ricans’ marginality vis-à-vis the rest of society (Nelson & Tienda, 1997). Indeed, being of a lower social class has been found to be associated with a perceived subordinate rank (Kraus, Piff, & Keltner, 2009). Important to note however, is that Puerto Rican men and women may differ in their response to social and economic marginality. For

example, Puerto Rican males—as men of color—may have gendered and cultural conceptions of what it means to be out of the labor force and unemployed, such that these forms of exclusion may manifest for Puerto Rican males as perceiving their social status as low. That is, for Puerto Rican men, discrepancies between what their actual economic status is and prescriptive hegemonic standards of what a man should be may be implicated in perceptions of social status in the U.S. (Mirandé, 1997). According to this proposition, Puerto Rican men should rate their social status in the U.S. the lowest compared to other Latina/o subgroups, including men and women.

Consequently, rather than viewing perceptions of discrimination and social status as solely driven by national origin, it is expected that gender will influence the extent to which men and women from different Latino subethnic groups respond to the advantages and disadvantages they experience in the U.S.

*Hypotheses 1a & 1b:* It is predicted that there will be an overall difference across subgroups on self-reported everyday discrimination and social status in the U.S. More specifically, (1a) Cuban women will report the least amount of discrimination and Puerto Rican men the highest levels of discrimination; and (1b) Puerto Rican men will report their social status in the U.S. as the lowest, and Cuban men the highest.

*Exploratory Research Questions 1c & 1d:* Within gender groups, do Cubans, Puerto Ricans, and Other Latina/os differ from Mexicans on the extent to which they report everyday discrimination and perceive their social status in the U.S.?

No a priori hypotheses are made regarding pairwise comparisons on the measures of everyday discrimination or subjective social status in the U.S.

## **Indirect Effects**

### **Linking Discrimination, Social Status, Mental and Physical Health**

*Research Question 2a: Is self-reported everyday discrimination indirectly related to self-rated physical health through subjective social status in the U.S. and psychological distress?*

*Research Question 2b: Is self-reported everyday discrimination indirectly related to self-rated physical health through psychological distress, independent of subjective social status?*

Significantly, socioeconomic disadvantage has been reported to be one underlying mechanism of the relation between discrimination and poor mental and physical health status (Brondolo et al., 2009; Gee et al., 2006; Krieger, 1999; Williams et al., 1994; Williams & Mohammed, 2009). Indeed, SES has been said to influence health not only directly, but also indirectly, particularly through psychological responses, including positive and negative emotions and affect (Adler & Rehkopf, 2008; Adler & Snibbe, 2003; Gallo et al., 2006; Williams et al., 1994). To the degree that Latina/os face a number of status-based stressors (e.g., low-SES), it is postulated that Latina/os may be at an increased risk for psychological distress, which in turn may affect perceived physical health. For example, self-perception of lower social status is associated with greater stress, in turn, increasing vulnerability to the effects of the stress resulting from low-SES and that of the psychological response (Adler et al., 2000). In fact, various scholars have suggested greater levels of psychological stress may partially mediate the impact of SES on health (Adler & Snibbe, 2003; Williams et al., 1994). Further, at lower levels of the SES hierarchy, individuals may be exposed to greater levels of chronic stress, such as

lack of access to economic and social resources, inadequate health care, and discrimination, which can result in differences in health outcomes and disparities (Adler & Ostrove, 1999; McEwen, 1998; Williams et al., 2003).

A significant number of studies have also linked discrimination with psychological distress among ethnic minorities. In fact, it has been suggested that the high rates of mental health problems, notably psychological distress, found among Latina/os is partly attributed to the numerous stressors (discrimination, acculturation, poverty) faced among this population (Vega & Amaro, 1994). Indeed, Nuru-Jeter, Williams, and LaVeist (2008) suggested that paying attention to psychological distress is important for two reasons, including that it may represent an important pathway by which racial and ethnic disparities exist across a number of physical health outcomes. Further, Williams and Collins (1995) also noted that discrimination increases psychological distress, and in turn, adversely affects physical health status in addition to other mental health outcomes and health-related behaviors. Using an ethnically-diverse population-based sample, Operario and colleagues (2004) showed that psychological distress seems to operate as a mediating factor between subjective social status and health, as opposed to acting as a confounder. However, although a number of studies have suggested that psychological distress could serve as a mediator between discrimination or subjective social status and physical health, only a limited number of these studies have actually used analytic approaches that test for mediating effects.

Notwithstanding, Todorova and colleagues (2010) found that among Latino elders, depressive symptoms mediated the effect of discrimination on health conditions. Similarly, in a sample of Mexican adults, Finch and Vega (2003) also found that the

relation between perceived discrimination and physical health (i.e., an index of existing medical conditions) was mediated by depressive symptoms. That is, these studies found that discrimination was associated with more depressive symptoms, and in turn, depressive symptoms were associated with more health/medical conditions. Although these studies focused on depressive symptoms, they seem to suggest that negative affect (e.g., psychological distress) may also be an important mechanism by which discrimination may influence the health status of Latina/os.

To the extent that discrimination is directly associated with a perceived lower social status and that they exert affective responses, it is postulated that discrimination will indirectly affect self-rated physical health through a self-perceived low social status and psychological distress (Pathway 1). Likewise, given the consistent theorizing and empirical support suggesting psychological distress as a proximal pathway linking discrimination to physical health, it is very probable that discrimination indirectly affects self-rated physical health through psychological distress, independent of subjective social status (Pathway 2).

*Hypothesis 2a:* It is hypothesized that discrimination will be associated with a lower subjective social status in the U.S. In turn, a lower subjective social status will be related to greater psychological distress, and thereby, associated with poor self-rated physical health.

*Hypothesis 2b:* It is hypothesized that discrimination will be associated with greater psychological distress. In turn, greater psychological distress will be associated with poor self-rated physical health, independent of subjective social status.

## **Direct Effects**

### **Individual-Level Discrimination, Social Status, and Health Outcomes**

*Research Questions 3a, 3b, & 3c: Is self-reported everyday discrimination directly associated with subjective social status, psychological distress, and self-rated physical health?*

The first link in the proposed model suggests that everyday discrimination transforms an individual's perception of where they stand in relation to others in the U.S. At the individual level, the link between discrimination and subjective social status can be viewed as representing one way by which discrimination is internalized. That is, individuals are keenly aware of negative portrayals and stereotypes of the group(s) to which they belong (e.g., Latina/os; Niemann-Flores, 2001; Steele, 1997; Suarez-Orozco-Suarez-Orozco, 2001; Tajfel, 1981). The same has been suggested regarding SES, such that people are cognizant of their SES relative to that of others' (Adler & Snibbe, 2003). Thus, discrimination can convey to individuals that they are devalued in society, and that the person is different or not a part of the "in-group" (Crocker et al., 1998). Moreover, although focusing on racism and not on everyday discrimination specifically, scholars have noted that, "the existence of racism influences...the way targets think and feel about themselves and others" (Brondolo et al., 2009). This is consistent with the social psychological theory of the looking glass, which suggests marginalized individuals may come to internalize negative stereotypes and beliefs about inferiority of their group (Cooley, 1902)<sup>15</sup>. That is, individuals may come to see themselves in the way in which they believe others see or treat them (Suarez-Orozco, 2001).

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<sup>15</sup> Important to note, however, is that marginalized individuals, including people of color, do not necessarily passively internalize negative societal views and do actively cope with derogation (Crocker et al., 1989).

Most studies in this area have examined how discrimination affects the self-concept, identity, and self-esteem of ethnic minority individuals. These studies have shown that discrimination increases ethnic identification and self-esteem (Portes & Rumbaut, 2001; Crocker & Major, 1989; Crocker & Quinn, 2000).<sup>16</sup> However, a meta-analysis found that generally, Asians, Latinos, and American Indians report lower self-esteem, whereas African Americans report higher self-esteem compared to Whites (Twenge & Crocker, 2002). Likewise, recent work on discrimination suggests that ethnic identification is dependent on the type of perceived discrimination. For example, Armenta and Hunt (2009) find that among Latina/os, responses to discrimination vary by type of discrimination (e.g., personal versus group discrimination). That is, perceived *group* discrimination is related to higher personal self-esteem and group identification, whereas perceived *personal* discrimination is related to lower personal self-esteem.

To date, only one study has examined the link between discrimination and subjective social status. Franzini and Fernandez-Esquer (2006) among a sample of low-income Mexican American adults in Texas, examined predictors of subjective social status, including perceived racism, but did not find they were related. However, it should be noted that they entered perceived racism in their final statistical model, after inclusion of demographics, objective and subjective SES-related measures (e.g., financial strain), and sociocultural factors (e.g., religiosity, perceived victimization, social support, etc.). Thus, it is not known whether perceived racism was predictive of subjective social status before inclusion of other variables. Likewise, these findings may not be generalizable to Latina/os who are not low-income, of Mexican decent, or live elsewhere in the U.S.

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<sup>16</sup> It should also be noted that most of the studies including Latina/os have largely focused on Mexican/Mexican Americans, or have focused on adolescents, which may or may not be generalizable to Latina/os of other national origins or at a different developmental stage (e.g., adulthood).

Further, perceived racism and everyday discrimination may have a different association to subjective social status, given one is based on race/ethnicity and typically focuses on discrimination against one's racial/ethnic group, whereas the latter scale measures unfair treatment in general and targeted at the individual.

Nonetheless, some scholars have argued that experiences of individual-level discrimination may be partly responsible for one's location on the SES ladder (Cooper & David, 1986 as cited in Finch et al., 2001). Others have also posited that perhaps the process of assigning one's own subjective social status involves reflected appraisals (e.g., how we perceive others see us; Franzini and Fernandez-Esquer, 2006). Additionally, perhaps individuals may incorporate dimensions of social status into their construction of identities, given that as argued by Williams et al. (1994), SES overlaps with the concept of race/ethnicity, though they are not equivalent. Moreover, given that Latina/os are comprised of immigrants, experiences of discrimination and exclusion may erode expectations of improved social and economic status (Vega & Amaro, 1994). Therefore, to the extent that Latina/os, who are disproportionately represented in lower SES levels, perceive being discriminated against and stereotyped as poor and of a lower social class standing (Goodwin & Fiske, 1996; Jost, Pelham, & Carvallo, 2002), it is postulated that everyday discrimination may result in a lower subjective social status in the U.S.<sup>17</sup>

*Hypothesis 3a:* It is hypothesized that self-reported everyday discrimination will be negatively associated with subjective social status in the U.S., such that greater frequency of discrimination would be associated with a lower subjective social status.

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<sup>17</sup> Items on the everyday discrimination scale measure discrimination targeted at the individual, not at one's ethnic or racial group, which would make this hypothesis consistent with that similar to the findings related to those found for the relation between perceived personal discrimination and self-esteem (cf. Armenta & Hunt, 2009). See Methods section for everyday discrimination scale items.

Further, discrimination has been understood to be a form of psychosocial stress that exerts its effects on mental and physical health, since it has been suggested to be a chronic stressor that elicits different types of responses, including affective and biological ones (Brondolo et al., 2009; Harrell, 2000). Indeed, the stress that results from being treated rudely, ignored, or thought of as less smart, for example, is thought to accumulate over time—thereby adversely affecting the psychological well-being and physiological patterns of those who are discriminated (Jackson et al., 1998). Indeed, everyday discrimination is most detrimental to health because of its chronicity and perceived stressfulness (Harrell, 2000; Jackson et al., 1998). That is, an increased likelihood in mental health problems is likely to occur from the accumulation of multiple, persistent and straining stressors, rather than from experiencing only a single stressful event (Ong, Fuller-Rowell, & Burrow, 2009). Thus, for people of color, the accumulation of daily hassles closely associated with their stigmatized social identities (Jackson et al., 1998; Williams et al., 1999) contributes to their overall stress load; thereby, eventually having noxious effects on mental and physical health (Harrell, 2000).

Likewise, as noted by Harrell (2000, p. 45) and observed by Pierce (1995), for people of color, emotional and cognitive energy spent on questioning, replaying, and attempting to explain their experiences with discrimination can become psychologically taxing, above and beyond the initial occurrence. Thus, not surprisingly, discrimination has been found to consistently impair the mental health of ethnic minorities, particularly depressive symptoms and psychological distress (Araújo & Borrell, 2006; Kessler et al., 1999; Paradies, 2006). Indeed, according to Lazarus (1971 as cited in Mellor, 2004, p. 56), “*psychosocial stress* refers to the socially derived, socially conditioned, and socially

situated psychological processes that stimulate subjective distress.” Importantly, discrimination is not just an added form of stress for people of color, but rather a pathogen that generates depression (Fernando, 1984).

At the same time, discrimination has been found to affect physiological systems, altering physiological responses such as heart rate and blood pressure, which have been found to be associated with the development of stress-related disorders such as cardiovascular diseases, among other health conditions (Brondolo et al., 2009; Clark et al., 1999). Indeed, the accumulation of experiences of discrimination can have negative consequences on physiological and biological processes (Todorova et al., 201). For example, prolonged and heightened stress-based cortisol harms both mental and physical health (Schneiderman et al., 2005). This is so, given that the biological costs associated with constant adjustments to chronic stressors lead to allostatic load (McEwen, 1998), and therefore, it is allostatic load that is associated with chronic illness. To the degree that discrimination exerts psychological and physiological responses, it is expected that discrimination will be associated with psychological distress and negatively influence an individual’s perception of their health status.

*Hypothesis 3b:* It is hypothesized that discrimination will be positively related to psychological distress, such that higher frequency of reported everyday discrimination will relate to higher levels of psychological distress.

*Hypothesis 3c:* It is hypothesized that discrimination will be negatively related to self-rated physical health, such that higher frequency of reported everyday discrimination will relate to lower self-rated physical health.

## **Subjective Social Status, Mental and Physical Health**

*Research Question 4a & 4b: Is subjective social status in the U.S. directly associated with psychological distress and self-rated physical health?*

As noted earlier, generally, Latina/os are overrepresented at lower SES levels. Moreover, as discussed in the literature review, socioeconomic status influences both mental and physical health. Most notably, SES has been shown to directly relate to psychological distress, and to correlate with other indicators of mental health (Adler et al., 2000; Alegría et al., 2007; Krieger et al., 2005). Likewise, subjective social status influences physical health, including subjective and objective indicators of health (Adler et al., 2000). Significantly, Angell (1993 as cited in Adler & Snibbe, 2003, p. 119) noted that, “in study after study, socioeconomic status emerges as one of the most important influences in morbidity and mortality.”

It has been argued that social class is one example of social comparison. Indeed, social comparison has been postulated as part of the process by which persons come to assign their subjective social status (Franzini & Fernandez-Esquer, 2006). In particular, Kraus and colleagues (2009) argue that subjective social status is a measure that more clearly brings into focus an individual’s understanding of their hierarchical position vis-à-vis others in the larger society. Therefore, this form of social comparison is thought to make individuals feel depressed or stressed, since as Fiske (2010) noted, being below others (as an individual or as part of a social group), for example, can make people feel ashamed. Likewise, stress can arise not only from material deprivation, but also from an individual’s perception of relative deprivation (Wilkinson, 1997 as cited in Mendelson, Rehkopf, & Kubzansky, 2008). For example, personal deprivation has been associated

with distress symptoms (Crosby, 1976), and a meta-analysis showed that higher levels of personal relative deprivation were associated with lower levels of psychological well-being (Smith & Ortiz, 2002). At the same time, as was discussed in the literature review, a perceived lower social status is associated with poor self-rated health (Adler et al., 2000). Despite that the relationship between subjective social status and self-rated physical health seems to be less consistent than that found for mental health, a number of studies have shown that subjective social status is predictive of health even after adjusting for a number of covariates. Likewise, although this body of research among Latina/os is a nascent one, it is still expected that a higher subjective social status will be associated with better self-rated physical health.

*Hypothesis 4a:* It is hypothesized that subjective social status in the U.S. will be negatively associated with psychological distress, such that a higher social status in the U.S. will be associated with lower psychological distress.

*Hypothesis 4b:* It is hypothesized that subjective social status in the U.S. will positively relate to self-rated physical health, such that a higher subjective social status will relate to better (i.e., higher) self-rated physical health.

### **Psychological Distress and Physical Health**

*Research Question 5: Is psychological distress associated with self-rated physical health?*

Interestingly, few studies have assessed how mental health influences physical health among Latina/os, despite research that suggests mental and physical health conditions are related and co-exist (Cabassa et al., 2008; Farmer & Ferraro, 1997; Tessler

& Mechanic, 1978), that psychological distress and depression are related to health ratings (Jylha, 2009; Schnittker, 2005; Tessler & Mechanic, 1978) and that they contribute to poorer physical health and quality of life (Covinsky et al., 1997; Gaynes et al., 2002).

For example, in one of the earliest studies examining the relation between psychological distress and perceived health status, Tessler and Mechanic (1978) found, using four different surveys, that irrespective of the mode of data collection employed, and the measure of psychological distress used, distress was significantly and consistently associated with perceived physical health status, even after adjusting for a number of sociodemographic factors and physical health status (physician rating). In fact, psychological distress was the only variable that remained statistically significant across all four data sets, aside from the measure of objective physical health status. Further, Schnittker (2005) found that depressive symptomatology was strongly associated with self-rated health, and that when examining the association between each scale item with self-rated health, strong associations were observed for both affective and somatic symptoms, suggesting that it is probable that self-assessments of general health may reflect mental health as much as physical health. Additionally, Farmer and Ferraro (1997) examined the relation between psychological distress and perceptions of health status using two waves of the National Health and Nutrition Examination Survey I (NHANES I). Using structural equation modeling, this study found that psychological distress was associated with poor health perceptions, and in the following wave, perceived health was associated with psychological distress, suggesting, as the authors noted, a cycle of decline between these two health indicators.

Most of the research linking mental and physical health among Latina/o populations remains largely separate from each other. Indeed, it is important to understand the relation between mental and physical health, given that discrimination affects both, and that depression in particular has serious implications for physical functioning (Finch et al., 2001). However, there is some research on Latina/os focused on cultural expressions of distress, particularly that related to somatization. For example, Latina/os in general are more likely to somatize distress (Marin, Escobar, & Williams, 2006) or express psychiatric illness through cultural idioms of distress, such as *ataques de nervios* (Canino et al., 1992; Guarnaccia et al., 2010). In fact, the mix of physical and emotional complaints have been noted to be an acceptable way of expressing psychological distress (Alegría & Woo, 2009; Guarnaccia et al., 2005), particularly because it has been suggested that for Latina/os, mental and physical health are intertwined as a more holistic view of well-being (Treviño & Rendón, 1994).

In fact, various studies have shown that Latinos are more likely than non-Latinos to report somatic symptoms on a number of scales measuring psychological distress (Angel & Guarnaccia, 1989; Canino et al., 1992). Among Latina/os, self-rated physical health may therefore encompass much more than actual health conditions, but may also consist of somatic expressions of psychological and life distress (Guarnaccia et al., 2005).

*Hypothesis 5:* It is expected that psychological distress will be negatively associated with self-rated physical health, such that greater psychological distress will be related to worse (i.e., lower) self-rated physical health.

### **Moderated Mediation: Considering Social Location**

Based on the social marginality and intersectionality frameworks, which suggest that encounters of marginality may not necessarily be embodied in the same way between and within social groups, the following research questions are addressed.

*Research Question 6: Are there differences in the process by which self-reported everyday discrimination affects self-rated physical health across Latina/o subgroups (at the intersections of gender and subethnicity)? That is, do gender and ethnicity together moderate the overall model paths?*

Health research on Latina/os has for the most part overlooked the particulars of gendered experiences within this group. However, several feminist scholars have noted that gender (as is ethnicity), is one of the most fundamental dimensions of social status in any given society (Hondagneu-Sotelo, 2004; Pessar, 1999; Ridgeway & Bourg, 2004; Stewart & McDermott, 2004). In fact, Ridgeway and Bourg (2004) argue that thinking of gender as status allows us to examine systematically the extent to which observed gender differences in different domains (e.g., social behavior, mental health) are unique to gender or also due to other status distinctions (e.g., race, education), which are also likely to produce differences across domains. Indeed, gender has long been recognized as a status category that significantly frames women and men's social experiences as well as access to psychological, social, and economic resources (Stewart & McDermott, 2004). Clearly, given the differential social positioning of men and women of color (Amaro, 1995; Amaro, Raj, & Reed, 2001; Williams, 2002), as well as men and women's differences in responses to stressful situations (Flores et al., 2008; Nolen-Hoeksema, 1990), there is reason to believe that among Latina/os, discrimination, as well as the

pathways from discrimination to health, may be both gendered and ethnicized (McDonough & Walters, 2001; Zierler & Krieger, 1997).

However, although the body of research on discrimination among Latina/os is growing, surprisingly, there has been no parallel increase in scholarly attention to the role of gender on the discrimination-health relation, despite that both racial and gender inequality and discrimination are robust determinants of health and contribute to health disparities in the U.S. (Krieger, 1990). The paucity of research on Latina/os in this area is particularly noticeable. Indeed, to date, the large corpus of work on discrimination among Latina/os continues to be focused on Latina/os as an aggregate group. For example, the literature on discrimination as it relates to Latina/os has made three critical assumptions: (1) that all Latina/os face discrimination in a singular form; (2) that discrimination is primarily based on ethnicity or race; and thereby (3) that all Latina/os will be similarly affected by experiences of discrimination.

Likewise, despite the wealth of literature on how socioeconomic status affects the life chances of Latina/os across various domains, much of this literature has regarded Latina/os as all occupying a “poor” or low social class standing, or that Latino males are always more economically privileged than Latino females. For example, it has been typically assumed that all Latino males exercise greater degrees of social and economic power over Latino women, though some scholars have argued that it is critical to examine hierarchy among genders in terms of their access to patriarchal benefits, given women may themselves also exercise differing levels of power over some men (e.g., through marital status, race, nationality; Hartman, 1994 as cited in Kawachi et al., 1999). Indeed, ethnicity and class, among other factors, may pattern differences among Latino

men and women. Thus, SES or social status more generally, may not be experienced in the same manner between men and women among and between Latina/o subgroups. Consequently, to generalize that the health effects of social status among Latina/os would be the same for men and women across subethnicities would be flawed. Intersectionality in this case, allows the opportunity to examine contradictory experiences of privilege and disadvantage among Latina/os (Hurtado & Sinha, 2008).

In essence, there is a clear absence of the ways in which gender also shapes experiences faced by Latina/os, and consequently, health—despite that the gender context is integral among this ethnic group (Hondagneu-Sotelo, 2004; Pessar, 1999). Both ethnicity and gender serve as sites through which Latina/os structure and negotiate their social realities within the immigrant and U.S. context (Mahalingam, 2006). This beckons us to pay more attention to the gendered subethnic health effects of social marginality. Specifically, health research would benefit from more systematic examination of how particular mechanisms may operate differently (or similarly) in putting Latinas and Latinos of different subethnicities at risk for ill health. Rather than implicitly privileging ethnicity over gender, also placing gender at the center of the study of social marginality among Latina/os is paramount, since discrimination tends to accentuate and maintain widespread inequalities (Belle & Doucet, 2003) that *both* Latino men and women already disproportionately experience in present U.S. society.

*Hypothesis 6:* It is therefore postulated that ethnicity and gender will moderate the paths (the overall structural parameters) in the process model, meaning that there will be a significant difference in parameter estimates between the Latina/o subgroups for the overall path model (i.e., moderated mediation will occur). In particular, it is predicted

that the unconstrained structural model (i.e., where all parameters are allowed to vary between the groups) will have a better fit to the data than the invariant model (i.e., where all groups are constrained to be equal to each other).

*Research Questions 6a-6f: Which relations in the path model are moderated by gender and ethnicity?*

Aside from the moderated mediation that is hypothesized, specific parameters in the model are also expected to differ across certain Latina/o subgroups. That is, it is projected that the strength of certain parameters in the three-path model will be dependent on both gender and ethnicity. What follows are explanations for why it is believed that relations will be dependent on Latina/o subgroup membership.

*Social Identities, Discrimination and Subjective Social Status*

Social psychologist Tajfel (1981) argued that the formation of social identities is the consequence of three social psychological processes. Relevant to the study of the effects of discrimination on subjective social status in the U.S. is the process of the need to achieve a positive sense of self. This process is important since the need to achieve a positive sense of self—in this case, a high subjective social status in the U.S.—presents itself as a greater challenge for individuals who belong to social groups that are devalued, “given they are more likely to engage in psychological work aimed at revaluing their group membership in order to preserve a positive sense of self” (Hurtado & Sinha, 2008, p. 340). For example, in the case of Latina/os, a poor, undocumented Mexican woman is more likely to reflect on her social identities than is a poor Puerto Rican man, whereas a poor Puerto Rican man is more likely to reflect on his social identities than a middle-class Cuban man, given that dominant group memberships that are accorded privilege may not

even develop into social identities (cf. Hurtado & Sinha, 2008). That is, to the degree that a poor, undocumented Mexican woman must reflect on and negotiate her multiple stigmatized identities in relation to “master statuses,” it is likely that these social identities will gain greater significance in a number of contexts (Hurtado & Sinha, 2008). In the context of discrimination, it is likely that it will most affect the subjective social status of individuals who hold more devalued social identities or social groups that are most disparaged by society, particularly because it is these individuals who are most likely to engage in psychological work in order to strive to construct a positive self-identity. Among Latina/os, Puerto Rican and Mexican men and women are usually more likely to experience discrimination and be devalued by society, as well as hold multiple stigmatized identities (although they also hold privileged statuses) compared to Cuban men and women. Therefore, their subjective social status is more likely to suffer from discrimination to a greater extent than it is for Cubans’, since as Hurtado and Sinha (2008) noted, a group’s status achieves significance in relation to perceived differences and stigmatized social formations.

*Hypothesis 6a:* The effect of everyday discrimination on subjective social status will be greater for those groups who are most socially and economically marginalized in the U.S. (i.e., Puerto Rican men/women and Mexican men/women) as compared to those who hold relatively less marginalized positions (i.e., Cuban men and women), such that greater frequency of perceived discrimination will be associated with a much lower subjective social status among Puerto Rican and Mexican men and women compared to Cuban men and women. No a priori hypotheses are made regarding Other Latina/os.

### *Ethnicity, Gender, Discrimination and Health*

Gender differences in the effects of psychosocial stressors on mental health have been noted (Aneshensel, Rutter, & Lachenbruch, 1991; Salgado de Snyder et al., 1990). Reasons for these differences have mostly been attributed to biological risks, gendered social roles, division of labor, and the lack of access to material and social resources (McDonough & Walters, 2001). However, research also suggests that men and women may embody stressors differently (Amaro & Russo, 1987; Annandale & Hunt, 1990). For example, women appear to respond to stress in affective terms (e.g., depression), whereas men are more likely to express anger and hostility (McDonough & Walters, 2001).

In a recent large study of adults between the ages of 25-74 years living in the United States, Ryff et al. (2003) found a negative relation between perceived discrimination and general well-being. Such effects however, were gender-specific. That is, for both white women and women of color, high levels of discrimination in their daily lives was associated with lower total well-being as compared to both white men and men of color. Likewise, Finch et al. (2000) in their study examining the discrimination-distress relation among an adult sample of Mexican Americans living in San Francisco found that perceived discrimination was associated with increased levels of psychological distress, and that gender moderated the relation between discrimination and depression, with the effects of discrimination being stronger for women than men.

Indeed, although both Latino men and women may experience discrimination and may be negatively impacted by it, Latino women must also contend with additional stressors associated with their role as mothers, wives, daughters, and employees (Amaro et al., 1987; Salgado de Snyder et al., 1990). Therefore, their psychological well-being of

Latino women may come to be affected by discrimination to a greater extent than that of their male counterparts. For example, in a national study examining family and work predictors of psychological well-being among professional Hispanic American women, Amaro et al. (1987) found that experiencing discrimination as well as stress in balancing family and professional roles were related to lowered levels of personal life satisfaction and increased levels of psychological distress. Indeed, many Latinas can find themselves dealing with many economic hardships, family and gender-related strains, as well as differential treatment due to their marginalized status as women of color. Therefore, looking at the context of both women and men's lives to understand these gendered effects becomes critical.

However, it has also been argued that women may not necessarily have poorer health than men, but instead, that gender differences in reactivity to stressors may depend on the health measure used (e.g., psychological distress, physical health, etc.), such that most studies have focused on examining differences on health conditions that are most likely to be present in women (Aneshensel et al., 1991). This has given rise for support of assessing variations in the effects of stressors among men and women through the use of multiple health indicators.

For example, when considering physical health as the outcome, Flores and colleagues (2008) found that the effects of perceived discrimination were greatest among men than they were for women. In fact, others have also shown that women's poorer health is only marked for mental health, and much less for self-rated health (Lahelma et al., 1999). These results provide a basis for questioning the assumption that women will always be affected by stressors to a greater extent, particularly when considering different

health outcomes. Important to note is that men are more likely to embody stress through anger and hostility. Anger in particular has been said to be associated with greater physiological responses, such as cardiovascular reactivity, and consequently with health (Krieger, 2000). Therefore, to the extent that men exhibit anger and hostility as a response to discrimination more often than women, it may be that discrimination will affect men's physical health to a greater extent than that of women.

It is expected that some of the noted findings may be replicable among the present sample. However, given the rather limited work that has been conducted on the assessment of gender-based differences in responses to discrimination, and among Latina/os in particular, conclusions regarding gender by subethnic group differences are not hypothesized. Instead, only hypotheses related to gender differences among Latina/os (in aggregate) are made.

*Hypothesis 6b:* The effect of everyday discrimination on psychological distress will be greater for women in all groups (i.e., Cuban, Mexican, Puerto Rican, and Other Latina/o women) as compared to Latina/o men of all groups, such that greater frequency of perceived discrimination is expected to be associated with more elevated levels of psychological distress among women from all Latina/o subethnic groups compared to Latino men.

*Hypothesis 6c:* The effect of everyday discrimination on self-rated physical health will be greater for men in all groups (i.e., Cuban, Mexican, Puerto Rican, and Other Latina/o men) as compared to Latina/o women in all groups, such that perceiving more discrimination is expected to be associated with poorer self-rated physical health among men from all subethnic groups compared to Latina/o women.

*Ethnicity, Gender, Subjective Social Status and Health*

Although it has been consistently documented that people at lower levels of the SES hierarchy experience greater levels of mental and physical health problems, rarely is there explicit consideration as to whether the effects of SES are dependent on both gender and ethnicity (cf. Iyer, Sen, & Östlin, 2008; Macintyre & Hunt, 1997). Particularly as it concerns subjective social status and its relation to mental and physical health among Latina/os, such research is scarce. As such, relative to the other clear reasons for the relations hypothesized for specific comparisons of groups, only exploratory hypotheses will be made regarding the role of subjective social status on psychological distress and self-rated physical health at the intersections of gender and ethnicity.

Nonetheless, it is important to mention that there are a few reasons to believe that these relations will be greater among Cubans—both men and women—than for all the other Latina/o subgroups. For example, subjective social status has been found to adversely affect self-rated health among groups who are more financially stable, but not for those with less socioeconomic resources (Franzini & Fernandez-Esquer, 2006; Ostrove & Adler, 2000). To the extent that Cubans are more economically well-off and place greater emphasis on perceived rather than objective measures of SES, one would expect that subjective social status would have a greater effect on this group—irrespective of gender. That is, a higher subjective social status would be more protective for Cubans' self-rated physical health. However, given that among Latina/os, the effect of social status on physical health has been found to be greater among men compared to women (Flores et al., 2008), it would be expected that increased perceptions of subjective social status would be associated with a much lower subjective social status among

Cuban men than Cuban women. Indeed, Cuban men may place greater significance on subjective social status, whereby the pressure to have to meet these perceptions may in turn come to affect their health more strongly than for Cuban women and men and women from all other Latina/o groups. At the same time, a number of studies have found that sex differences vary according to the outcome (as has been stated in earlier sections), with female excess being more consistent for psychological distress (Macintyre & Hunt, 1997; Macintyre, Hunt, & Sweeting, 1996). Therefore, given that it has been consistently shown that socioeconomic status plays a significant role on the mental health of women, it would also be expected that at least for Cuban women, similarly to Cuban men, subjective social status may be a better determinant of psychological distress than it would for other groups of Latina/os, for whom objective indices of SES may affect their mental health to a greater extent (Franzini & Fernandez-Esquer, 2004; Ostrove & Adler, 2000). However, given the lack of research in this area among Latina/os in particular, the following hypotheses (6d and 6e) are considered exploratory.

*Hypothesis 6d:* The effect of subjective social status in the U.S. on psychological distress will be greater for Cuban men and women than for all other Latina/o groups. Further, this effect will be greater for Cuban women compared to Cuban men. That is, increased perceptions of social status will be associated with much lower levels of psychological distress for Cuban men and women compared to all other Latina/o groups. However, it is expected that increased perceptions of subjective social status will be associated with much lower psychological distress for Cuban women compared to Cuban men.

*Hypothesis 6e:* The effect of subjective social status in the U.S. on self-rated physical health will be greater for Cuban men and women than for Puerto Rican men/women, and Mexican men/women. Further, it is hypothesized that among Cubans, this effect will be stronger for Cuban men compared to Cuban women. That is, increased perceptions of social status will be associated with better self-rated physical health among Cuban men and women compared to Puerto Rican and Mexican men and women. No a priori hypotheses are made regarding Other Latina/os.

*Ethnicity, Gender, Psychological Distress, and Self-Rated Physical Health*

Several studies have found that among Latina/os, Puerto Ricans are more likely to somatize distress than other subethnic groups (Angel & Guarnaccia, 1989; Canino et al., 1992). Similarly, somatization is more frequent among women (Canino et al., 1992; Guarnaccia et al., 2010). For example, Canino and colleagues (1992) found, using the LA-ECA and a epidemiological survey of Puerto Ricans, that Puerto Ricans evidenced a significantly higher levels of functional somatic symptoms than Mexican Americans born in the U.S. or in Mexico, and women across all groups were also more likely to have higher levels of functional somatic symptoms than their male counterparts. Likewise, Angel and Guarnaccia (1989) examined the association between affective distress and self-rated health among a U.S. sample of Mexican Americans and Puerto Ricans drawn from the Hispanic Health and Nutrition Examination Survey (Hispanic HANES; 1982-1984). This study found that for both groups, those who reported the lowest levels of health had the highest levels of depressive symptoms. However, Puerto Ricans reported much greater affective distress and worse health than Mexican Americans. In multivariable analyses, after adjusting for objective assessment of health (based on a

physician's assessment of the respondents health using the same metric) and sociodemographic factors, depressive symptoms were significantly associated with negative self-assessments of health, as well as with specific chronic health conditions for Puerto Ricans. The authors of this study note that at least for Puerto Ricans, depressive affect may indeed be manifested as specific health conditions (e.g., diabetes, bronchitis, kidney disorders). Likewise, findings of this study suggest that psychological distress is simultaneously expressed as negative assessments of physical health (Angel & Guarnaccia, 1989).

Further, among a sample of Mexican-origin adults from the Mexican American Prevalence and Services Study (MAPSS), Finch and colleagues (2001) showed that depressive symptoms were associated with lower ratings of self-rated physical health, as well as with a greater number of chronic health conditions, even after accounting for a number of possible confounders. Similarly, in another study (Escobar et al., 1987), Mexican women, compared to white women, were found to be more likely to report somatic symptoms of depression on a structured diagnostic interview, whereas in another study, Puerto Ricans were found to have higher rates of somatization compared to Mexican Americans and non-Latinos (Escobar & Canino, 1989). Although limited, these studies point toward examining this relation among different groups of Latina/os at the intersection of gender and ethnicity, given some subgroups seem to be more prone than others to somatize distress. More specifically, these studies suggest that the effect of psychological distress on self-rated physical health should be greater among Puerto Ricans, and that among this group, the effect of psychological distress on self-rated physical health should be greater for Puerto Rican women.

*Hypothesis 6f:* The effect of psychological distress on self-rated physical health will be greater for Puerto Rican men and women as compared to the rest of the Latina/o subgroups. Among Puerto Ricans, the effect will be greater for women than for men. That is, increased levels of psychological distress will be associated with worse self-rated physical health among Puerto Ricans compared to all other Latina/o groups. Likewise, among Puerto Ricans, increased levels of psychological distress will be associated with worse self-rated physical health among Puerto Rican women compared to Puerto Rican men.

### **Contributions to the Literature**

Because the area of discrimination and subjective social status as it concerns Latina/os remains largely scant, the answers to the proposed research questions will hopefully provide greater insight into gendered subethnic group effects in the experience and impact of forms of social marginality among the largest ethnic minority group in the U.S. Likewise, this study may help us better understand how differences in “exposure” to social marginality may in turn result in differential health profiles across Latina/o subgroups. It should be noted that the goal of this study is not to be exhaustive of the multiple ways by which discrimination affects health, as the pathways leading from discrimination to health are complex and multidimensional (Brondolo et al., 2009). Rather, the aim of this study is to begin to test parts of theoretical models that have put forward pathways by which marginalized groups come to be adversely impacted by social stressors.

Additionally, another goal of this study is to examine the strength of associations so

as to begin to better understand who may be most at risk of adverse health effects. To the best of my knowledge, this study is the first to simultaneously examine differences in everyday discrimination and subjective social status, as well as test for moderated-mediation effects in the relation between discrimination and physical health.

In sum, the proposed adapted model presented is an exploratory attempt at elucidating the complex interrelations between stressors, mediators, and outcome variables in order to add a deeper understanding of the discrimination, SES, and health relations at the intersections of multiple social identities.

## CHAPTER IV

### METHOD

#### **Data Source**

The National Latina/o and Asian American Study (NLAAS) is a nationally stratified area probability sample of non-institutionalized persons, 18 years of age and older living in the United States. Individuals excluded from eligibility in the survey included those living on military bases and institutionalized persons (i.e., individuals in prisons, jails, nursing homes). However, military personnel living in civilian households were eligible to participate in the study. The NLAAS is a psychiatric epidemiological study aimed to measure psychiatric status, functional impairment, and service utilization among Latina/o and Asian samples (Alegría et al., 2004a).

#### **Sample Design**

The NLAAS stratified probability sample design included multiple area probability sample components: (1) *NLAAS Core* sampling of Primary Sampling Units (PSUs), area segments, and housing units designed to be nationally representative of all US populations including Latina/os and Asians; (2) *NLAAS High Density* (HD)—high-density supplemental samplings of census block groups in order to over sample geographic areas made up of more than 5% of targeted subethnic groups. The NLAAS-

HD sample design was employed given that the Core sample had very low density of target populations, given the Core sample design does not regard geographic residential patterns of populations. Thus, in order to screen large enough samples of households with targeted Latina/o and Asian subgroups, the second sample design was employed; and (3) secondary respondent sampling was employed to recruit participants from households where a primary respondent had already been interviewed (Heeringa, Wagner, Torres et al., 2004).

### **Procedure**

Data collection for the NLAAS took place between 2002 and 2003. The primary mode of data collection was by in-person interviewing at the respondent's home, and telephone interviews were also conducted for those respondents requesting the interview by phone. The instruments were administered using computer-assisted interviewing (CAI). Interviews were conducted in additional languages for those respondents who chose a language other than English (i.e., Spanish, Vietnamese, Tagalog, and Chinese; see Alegria et al., 2004 for more details on the development of the NLAAS instruments). Instruments were translated using standard techniques (i.e., standard translation and back translation). The average length of time of interview for the NLAAS was 2.7 hours (median = 2.4). As a measure of quality control, a 10% random sample of participants with completed interviews was recontacted for validation.

The University of Michigan, the Cambridge Health Alliance, and the University of Washington's Internal Review Board Committees approved all recruitment, consent, and interviewing procedures (see Pennell et al., 2004 for a detailed description of the data collection procedures). Participants were financially compensated for their participation.

## **Study Sample**

Interviews were completed with 4,864 adults, of which 2,554 were Latina/o respondents. For the present study, analyses included only the Latina/o subsample. The Latina/o sample was divided into four strata of interest: Cuban:  $n = 577$ ; Mexican:  $n = 868$ ; Puerto Rican:  $n = 495$ ; and Other Latina/o:  $n = 614$ . The overall weighted response rate for main respondents in the NLAAS was 75.7%, and 77.6% for Latina/o respondents.

## **Measures**

### **Social Marginality Constructs**

*Everyday Discrimination/Unfair Treatment.* Everyday discrimination was measured using a 9-item scale adopted from the Detroit Area Study (DAS; Williams, Yu, Jackson, & Anderson, 1997), used to assess perceptions of routine unfair treatment (Essed, 1991). Items comprising the scale were as follows: (1) You are treated with less courtesy than other people, (2) You are treated with less respect than other people, (3) You receive poorer service than other people at restaurants or stores, (4) People act as if they think you are not smart, (5) People act as if they are afraid of you, (6) People act as if they think you are dishonest, (7) People act as if you are not as good as they are, (8) You are called names or insulted, and (9) You are threatened or harassed. Respondents reported frequency of each item on a 6-point scale ranging from 6= never to 1 = daily. Responses to items were reverse coded so that higher scores reflected greater frequency of discrimination. Similar to other studies, a principal components factor analysis with varimax orthogonal rotation found support for a 1-factor structure (Eigenvalue= 5.204; factor loadings= 0.68 - 0.82), which explained 57.83% of the total variance. Thus, the

scale was used as a unidimensional measure. The sum of the nine items was used in analyses. Internal consistency for the scale was high ( $\alpha$  for the total sample = .82).

Following the everyday discrimination questions, respondents were asked about attribution. This was assessed using a single item, “What do you think was the main reason for this/these experience(s)? Respondents chose whether the reason for unfair treatment was due to their: (1) ancestry or national origin or ethnicity; (2) gender or sex; (3) race; (4) age; (5) height; (6) skin color; (7) sexual orientation; (8) weight; (9) income or educational level; and (10) other (specify).

*Subjective Social Status in the United States.* To assess subjective social standing—which has been found to be a robust predictor of psychological and physical health outcomes (Adler et al., 2000)—survey respondents were shown a drawing of a ladder with 10 rungs that was described as follows: “Think of this ladder as representing where people stand in the *United States*. At the top of the ladder are the people who are the best off—those who have the most money, the most education and the most respected jobs. At the bottom are the people who are the worst off—those who have the least money, least education, and the least respected jobs or no job. The higher up you are on the ladder, the closer you are to the people at the very top; the lower you are, the closer you are to the people at the very bottom.” Respondents were then asked to answer the following question: “What is the number to the right of the rung where you think you stand at this time in your life, relative to other people in the United States?”

### **Mental and Physical Health Measures**

*Psychological Distress.* Non-specific psychological distress was measured with the Kessler Psychological Distress Scale (K-10; Kessler et al., 2002). This is a 10-item

inventory that assesses the prevalence of negative feelings over the past 30 days. Items comprising the scale were as follows: During the last 30 days, how often did you feel depressed? Did you feel so depressed that nothing could cheer you up? Did you feel hopeless? Did you feel restless or fidgety? Did you feel so restless that you could not sit still? Did you feel tired out for no good reason? Did you feel that everything was an effort? Did you feel worthless? Did you feel nervous? and Did you feel so nervous that nothing could calm you down? Respondents reported frequency of each item on a 5-point scale ranging from 5= none of the time to 1= all of the time. The raw variables were recoded so that higher values reflected greater levels of psychological distress. Responses were summed (Cronbach's  $\alpha = .90$ ). A principal components factor analysis with varimax orthogonal rotation found support for a 1-factor structure (Eigenvalue= 4.77; factor loadings= 0.64-0.79), which explained 52.96% of the total variance. Thus, the scale was used as a unidimensional measure. The K-10 has been routinely included in population health surveys, has strong psychometric properties, and has the ability to discriminate between DSM-IV disorder cases from non-cases (Kessler et al., 2002).

*Self-Rated Physical Health.* Within the public health literature, the validity of self-rated physical health has been firmly established for the overall population (Idler & Benyamini, 1997), as well as among Latina/os (Finch et al., 2002; Finch & Vega, 2003). Self-rated physical health was measured with a single item asking respondents to answer to the following question: "How would you rate your overall physical health?" Respondents rated their physical health on a scale ranging from 1 = Excellent, 3 = Good, thru 5 = Poor. Similar to other studies, this measure was used in all analyses as a continuous measure (Finch et al., 2001). This measure has been shown to have robust

predictive validity for morbidity and mortality (Baum & Posluszny, 1999; Idler & Benyamini, 1997).

### **Covariates**

*Sex:* Studies have found that men report more discrimination than women (Pérez et al., 2008). Research has also shown that women report greater levels of mental health problems, including depression and psychological distress than their male counterparts (Nolen-Hoeksema, 1987; Vega & Rumbaut, 1991). This variable was included as a covariate for the total sample model, but not the models stratified by ethnicity and sex. This variables was coded as 1= male and 2= female.

*Ethnicity.* The four Latina/o subethnicities were: Cuban, Mexican, Puerto Rican, and Other Latina/os. Studies have found that Latina/o subgroups in the United States differ on their reports of perceived discrimination (Pérez et al., 2008). Also, past studies have shown that Latina/o subethnic groups differ in their reports of self-rated physical health (Read & Gorman, 2006). This variable was only included as a covariate (as a set of dummy coded variables) for the total sample model, but not the model stratified by subethnicity and gender.

*Age.* Studies have found that age is correlated with reports of discrimination for Latina/os (Pérez et al., 2008), with younger Latina/os reporting more discrimination than older Latina/os. Likewise, age is associated with health status, with older adults evidencing worse physical health (Liang et al., 2010). Age was included in analyses as a continuous variable.

*Nativity.* Prior research notes that persons born in the U.S. are more likely to report higher levels of discrimination than foreign-born individuals (Pérez et al., 2008).

Nativity was used in analyses as a dichotomous variable, where the respondent indicated whether they were US-born= 1 (the reference group) or foreign born = 2.

*Socioeconomic Status.* Past literature has shown socioeconomic status to be related to health (Adler et al., 2000). Socioeconomic status was measured as “Household Income,” derived from the sum of seven questions related to sources of income: respondent, spouse, social security, government, family, and other. This variable had a lot of missing data ( $n \approx 300$ ); thus cases with missing data were imputed using the hotdeck module in STATA (cf. Pérez et al., 2008). Income was categorized as: less than \$15,000, \$15,000 to \$34,999, \$35,000 to \$74,999, and more than \$75,000. The \$35,000-\$74,999 and \$75,000 and over categories were included in the models as dummy variables, with “less than \$15,000” and “\$15,000-\$34,999” as the referent categories.

*Marital Status.* Prior studies have shown marital status (e.g., married) is associated with better mental health outcomes, and being divorced/widowed or never married as being related to increased psychological distress (Rivera et al., 2008). Likewise, prior studies suggest that men benefit more from marriage than do women (Lillard & Waite, 1995). Marital status was measured as a categorical variable: Divorced/Widowed, Never Married, and Married/Cohabiting. The “Married/Cohabiting” category was included in the models as a dummy variable, with “Divorced/Widowed” and “Never married” as the referent categories.

*Work Status.* Employment (work) status was coded as Employed, Unemployed, and Not in Labor Force. Studies have found that employment status can have negative as well as positive effects on psychological well-being among men and women (Kessler &

McLeod, 1984). The “Employed” category was included in the path models as a dummy variable, and “Unemployed” and “Not in Labor force” served as the referent categories.

Table 4 summarizes the covariates that are considered in the path model, specifying which ones are connected to specific main study variables.

**Table 4. Matrix of Covariates for Path Analysis with Main Study Variables<sup>18</sup>**

	Sex	Age	Nativity	Income	Marital Status	Ethnicity	Work Status
Everyday Discrimination	X	X	X			X	
Subjective Social Status in the U.S.				X			
Psychological Distress	X				X		X
Self-Rated Physical Health		X		X		X	

## Data Analytic Strategy

### *Missing Data*

Proportion of missing data on all pair of variables for use in analyses was examined to make sure that no more than 5% of data was missing for any one pairing.

For the total sample, at least all variable pairs had 98% of data available (range of

<sup>18</sup> The sensitivity of results with and without education as a covariate was tested, given education has been found to correlate with discrimination. That is, people with higher levels of education typically report more discrimination. However, sensitivity analyses revealed that inclusion of education did not change the results; the estimates for the dependent variable and that of other coefficients remained virtually the same, and education was not associated with discrimination in the path model (data not shown). Given that generally, if coefficients of variables change when one changes controls, then these controls should be in the model. However, given this was not the case, education was left out of the model. Moreover, since income and education are typically correlated, income was chosen for inclusion in the model, as it has been shown to be a strong predictor of health and socioeconomic status in other studies, as well as for analytic reasons related to the loss of degrees of freedom. However, it should be noted that Perez et al. (2008) found, using the NLAAS, that education was associated with reporting discrimination, but this study differed in the way discrimination was measured (e.g., dichotomous versus continuous in the present study), and included other covariates in their logistic regression, versus the inclusion of only a limited number and different covariates included in the path model for this study. Therefore, possible reasons for a difference in the education effect may be due to the coding of discrimination or inclusion of different controls.

proportion of data available for variable pair = 98.7% to 100%). An almost identical pattern was noted when data were broken down by gender and subethnicity (covariance coverage ranged from 97.9% to 100%). Thus, based on high covariance coverage and that missing values for those used in analyses accounted for less than the recommended 5% for imputation (Tabachnick & Fidell, 2001), none of the variables with missing values were imputed. It should be noted that *Mplus* was used for all path analyses, and the maximum likelihood estimation with robust standard errors (MLR) was employed (it is the default method) in order to account for incomplete data and for the complex sample design—thereby adjusting for non-independence of observations due to clustering sampling, heteroskedasticity, and non-normality (Asparouhov & Muthén, 2006), resulting in unbiased estimates and standard errors.

#### *Descriptive Analyses*

All descriptive analyses (means, frequencies, proportions) were conducted using STATA 11.0 (Stata Corp, College Station, Tex, 2009) to account for the complex nature of the sample design, and to allow estimation of standard errors in the presence of stratification and clustering. Incorporating sampling weights allowed for unbiased estimates of coefficients, whereas incorporating clusters and strata produces unbiased estimates of the standard errors (Kiecolt & Nathan, 1985). Since data were weighted, results become nationally representative for Latino populations in the United States. Moreover, linearization methods (i.e., Taylor series linearization) were used to compute standard errors of estimates. The Rao and Scott second-order  $\chi^2$  correction was used to test for differences in estimated proportions from contingency tables (Rao & Scott, 1984; Rao & Thomas, 1989). Omnibus statistical tests for gender by ethnicity group differences

for each of the main study variables (psychological distress, self-rated physical health, everyday discrimination, subjective social status) were computed as adjusted Wald tests (for continuous variables).

### *Modeling Analysis*

Path analysis was employed using the *Mplus* 5.21 (Muthén & Muthén, 1998-2006) software program for Windows, which allows structural equation modeling/path analysis techniques to be possible with complex survey data. This analytic approach was employed in order to examine simultaneous relationships between multiple observed variables in the hypothesized three-path model. Moreover, path analysis was employed over regression analysis, given that standard regression approaches, where predictor variables independently predict only one outcome at a time, could not do justice to the complex interrelationships that exist between the multiple variables of interest (Adler et al., 1994). The use of path analysis thus allowed for the testing of both direct and indirect effects, as it is typically utilized to capture potential mediating effects on observed associations between dependent and independent variables of interest (Klem, 1995; Land, 1969).

As such, a path analysis approach allowed for the examination of the *process* by which discrimination affects self-rated physical health; that is, path analysis allowed the possibility of testing multiple pathways from everyday discrimination to self-rated physical health, including three-path (two mediators in series) and two path (one mediator) models (Taylor, MacKinnon, & Tein, 2008). Moreover, although several scholars have advocated the use of bootstrapping to get unbiased standard errors when testing for indirect effects (MacKinnon et al., 2002; Preacher, Rucker, & Hayes, 2007;

Shrout & Bolger, 2002), given analyses were conducted using MLR as the estimator, there was no need to use bootstrapping. In fact, bootstrapping is not available for MLR (which is used for complex sample design with continuous dependent measures), and the results obtained from simulation studies show that parameter estimates and standard errors using MLR would be identical to those obtained with the bootstrapping procedure (Muthén & Muthén, 1998-2006).

#### *Sample Size and Power Analysis for Test of Fit*

Kline (2005) suggested that a “realistic” target for cases per parameter for a structural equation modeling (SEM) simple design was ten cases. Given the total sample size for the present study is 2,554, there are more than enough cases per parameter using a target of 10 cases. Based on these results, the present study sample is a little over five times larger than the necessary minimum sample size. Moreover, MacCallum et al.’s (1996) suggestions for a non-complex design, single-group SEM regarding the minimum sample size to achieve power of .80 with  $df = 20$ , using  $\alpha = .05$  for a test of close fit (where  $\epsilon_0$  is the null value of Root Mean Square Error of Approximation (RMSEA) and  $\epsilon_a$  is the alternative value of RMSEA), is  $N = 435$ .

Preliminary power estimation for detecting significance of differences in model fit for the total sample using the RMSEA was conducted. Power for the total sample was estimated using  $df = 20$ ,  $\alpha = .05$ ,  $N = 2,554$ ,  $RMSEA (H_0) = 0.05$  and  $RMSEA (H_1) = 0.08$ . The estimates are presented in Table 5. As can be seen, the statistical power for test of close fit based on MacCallum et al.’s (1996) calculation was 1.00. It must be recognized however, that given the present data is from a complex sample, and these suggested procedures do not take into account the sample design (i.e., clustering and

stratification) these are overestimates; thus, these estimates should be considered preliminary hypothetical estimates. Nonetheless, given the large sample sizes, it seems reasonable to assume that even with a reduced effective sample size due to the sample design, the stability of the estimates can be trusted, as can the power to reject models (Laura Klem, personal communication, 2010). As well, it should be noted that power increases with larger samples, with power approaching 1.0 as  $N$  becomes large (MacCallum et al., 2006).

**Table 5. Preliminary Power Estimates for Level of Degrees of Freedom (df) and Sample Size**

df	Sample Size					
	500	1,000	1,500	2,000	2,500	2,554
20	0.85	0.99	1.00	1.00	1.00	1.00

### *Structural Invariance Analyses*

In order to examine whether different social locations (i.e., gender x ethnicity) moderated the paths (i.e., structural weights) from discrimination to self-rated health, multiple-group path analysis was employed. Multiple-group path analysis is used to study group differences on structural parameters by simultaneous analysis of several groups of individuals (Muthén & Muthén, 1998-2006). That is, multiple-group analysis of structural invariance is used to test whether differences observed in the structural parameters across groups are statistically significant (Marsh, 1987; Marsh, 1994).

Testing for invariance across multiple groups involves hierarchical ordering of nested models (Bentler, 1990). As such, two models were compared for the subgroup comparisons (i.e., gender by ethnicity [8 groups]) in the present study. Given that I was

hypothesizing that there would be group differences for the nested models that were tested, I first established a baseline model wherein no constraints were specified in the model, meaning that all paths from everyday discrimination to self-rated physical health were not held to be equal between the groups (i.e., between the 8 gender by ethnicity subgroups). For the second model, all paths were constrained to be invariant between the groups.

When a model is nested within another, the difference between them can be tested by subtracting the two chi-square values and testing this value against the critical value associated with the difference in degrees of freedom (Jöreskog, 1978; Long, 1983). However, given the complex sample design of the data, the unconstrained and constrained structural models were compared by conducting chi-squared tests for nested models based on Log-likelihood values and scaling correction factors obtained with the MLR estimator for complex survey data, rather than comparing the chi-squared values for the null and alternative models (cf. Asparouhov & Muthén, 2006). If the hypothesis of equal structural parameters is not rejected, meaning that the chi-square test exhibited no significant difference between the two models, we have strong support that there is cross-group invariance for the parameters (Byrne, Shavelson, & Muthén, 1989), and any observed differences across groups in the structural parameters may be explained by chance (Marsh, 1987). However, if the fit indices for the model with freed parameters have a better fit to the data than the invariant model, then the “category” being examined (e.g., Latina/o subgroup) is said to moderate the relationships; thus, suggesting moderated mediation (Muller et al., 2005; Preacher et al., 2007).

### *Assessment of Model Fit*

Given that several fit statistics have been suggested for model assessment depending on the type of analysis, no single fit index was advocated (Hu & Bentler, 1995). Moreover, since the chi-square statistic is sensitive to sample size, several fit indices were used to assess model fit. The following widely used goodness-of-fit measures are reported: Tucker-Lewis index (TLI; Tucker & Lewis, 1973) and the comparative fit index (CFI; Bentler, 1990), both of which compare the fit of the estimated model against a more restrictive baseline model. Important to note is that the CFI and TLI are both sensitive to the input matrix, and therefore will reflect the degree to which variables are correlated. Fit indices (TLI, CFI) that exceed .90 (range from zero to one) are considered to indicate that the model represents an adequate fit to the data (Hu & Bentler, 1995). Additionally, a widely used misfit index, RMSEA, is assessed. Misfit indices below .08 indicate that the model represents an adequate fit to the data (Hu & Bentler, 1995). Moreover, the 90% confidence interval (C.I.) for the RMSEA is reported. If the C.I. upper and lower bound values fall below .05, we can reject the hypothesis of not close fit, meaning we can be confident that the proposed model fits (MacCallum, Brown, & Sugawara, 1996). Although in the present study the criteria of .90 (for TLI and CFI) and .08 (for RMSEA) are used, it is important to note that more recent evidence from simulation studies support a cutoff value of .95 for the fit indices and .06 for the RMSEA (Hu & Bentler, 1998). Moreover, I report the probability of close fit (P close) for the total sample path model (Browne & Cudeck, 1993).

I also report the amount of variance explained for each of the main variables in the model, both for the unconstrained and constrained models. Lastly, while evaluating

the models, I also take into account the theoretical meaningfulness of the relationships between the variables, since the hypothesized paths may not reach statistical significance or be in the hypothesized directions (Schmitt et al., 2002).

#### *Targeted Moderation Analyses*

A series of linear regressions were conducted to test for moderating effects of Latina/o subgroup membership. Analyses were conducted using the STATA software, accounting for the sample design. Variables that were included in the regression models as predictor variables included: everyday discrimination, subjective social status in the U.S., and psychological distress. Since these variables were each used as continuous predictor variables in moderation analyses, the scores on each variable (i.e., the sum scores of discrimination and of psychological distress, and scores for subjective social status) were standardized to z-scores. Thus, this allowed for the minimization of problems of multicollinearity when estimating regression coefficients (Aiken & West, 1991). These variables were included as interaction terms with the Latina/o grouping variable. Multiple regressions were run for each of the parameters in the hypothesized path model: (1) everyday discrimination predicting subjective social status, psychological distress, and self-rated physical health; (2) subjective social status predicting psychological distress and self-rated physical health; and (3) psychological distress predicting self-rated physical health. Each multiple regression included covariates that were included in the path analysis (see covariates section for specific covariates included in analyses).

Given that I was interested in evaluating the contrasts that compared the slope of the dependent variables on the predictor for different sets of contrasts, the reference

group was changed each time in order to test for differences in coefficients between each of the groups. That is, tests of differences in product-term coefficients among the eight Latina/o groups means that the interpretation only concerns that of the omitted reference category (e.g., in this case Group 1 [Cuban Men] reflects the lowest category, which is omitted by default) compared to that of each other group. However, if the reference category is changed when rerunning regressions, we can test for differences in the product-term coefficient between different sets of contrasts (i.e., Puerto Rican women vs. Cuban women) as opposed to only in reference to the omitted default category. Therefore, this procedure, which has been advocated by Jaccard and Turrisi (2003), was used to be able to test hypotheses that involved comparisons with groups other than Cuban men. However, given that more than one regression model had to be conducted for each hypothesis and that a large number of contrasts were made, pairwise comparisons between different levels of the factor variable (i.e., Latina/o subgroup) were adjusted for the probability of a Type I error occurring across the sets of contrasts (cf. Hardy, 1993; Jaccard & Turrisi, 2003). Although the Bonferroni correction could be applied (as it is the traditional procedure), it is too conservative. However, the Holm test procedure (Holm, 1979) has been advocated as a more powerful alternative to the Bonferroni method, since it also effectively controls for a Type I error rate<sup>19</sup>. As such, the Holm test

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<sup>19</sup> The Holm test uses a step-wise procedure to examine a set of ordered contrasts. That is, one first gets the  $p$  value for each contrast in the group of contrasts. The  $p$  values are then ordered from smallest to largest value. The contrast with the smallest  $p$  value is compared against an alpha of  $.05/k$ , where  $k$  is the total number of contrasts in that group. If the unadjusted  $p$  value is smaller than the adjusted  $\alpha$ , then we reject the null and move on to the next  $p$  value and test it against an  $\alpha$  level of  $.05/k-1$ , where  $k-1$  is the remaining number of contrasts to be tested. If we fail to reject the null at this point, then we stop conducting any other contrasts and thus all other contrasts are also considered nonsignificant (Jaccard & Turrisi, 2003).

was used as the statistical adjustment for the multiple pairwise comparisons in the family of contrasts for which hypotheses were made.

To help interpret the results from the linear regression models, I used the coefficients from the original, respective model to calculate the predicted marginal means of each of the dependent variables. These predicted marginal means were plotted in order to illustrate the significant interaction effects among the different Latina/o subgroups. Moreover, Aiken and West (1991) recommend graphing moderation with three values (1 standard deviation below the mean, at the mean, and 1 standard deviation above the mean). Therefore, this procedure was employed. It should be noted that some of the values for the marginal means (i.e., the dependent variable) are negative or beyond the value allowed on a scale. Although theoretically, such values are not possible with the scales used, the type of model employed (ordinary least squares regression) does not restrict the predicted values to specific lower or upper bounds (e.g., as would an ordinal logit regression). Therefore, values outside the permitted range may still be present (Weisberg, 2005). However, I rechecked the data to make sure the negative marginal means were not due to the value of the continuous predictor not actually existing in the data (given it is possible that values at levels beyond those existing in the data will result in negative estimated marginal means). However, this was not the case; values for one standard deviation below, at and above the mean in discrimination were all observed in the data. Therefore, these plots should only be interpreted as preliminary graphical representations of the interaction effects.

## **CHAPTER V**

### **RESULTS**

#### **Bivariate Relationships among Main Study Variables**

Table 6 presents weighted correlations for main study variables among the total sample. Psychological distress was relatively more strongly correlated with perceived discrimination and self-rated physical health (although in different directions) than were any of the other variables. Not surprisingly, psychological distress had the highest correlation with discrimination, as many studies find a robust relation between discrimination and mental health. Tables 7-10 show weighted correlations for gender by subethnicity.

#### **Descriptive Statistics**

Tables 11 and 12 summarize weighted descriptive statistics of sociodemographic characteristics for the total sample, by gender, and by subethnic group, respectively. Tables 13 and 14 summarize weighted descriptive statistics of sociodemographic characteristics for gender by subethnic Latina/o groups. Comparisons reveal differences across Latina/o subgroups (for gender, ethnicity, and gender by ethnicity) on most of the sociodemographic characteristics.

Weighted means and standard errors of all main study variables for the total sample are presented in Table 15. Although no hypotheses were made regarding health outcomes, mean differences across the eight subgroups were examined for psychological distress and self-rated physical health. In terms of psychological distress, Puerto Rican

women reported the highest mean levels ( $M = 14.10$ ,  $S.E. = .53$ ), whereas Mexican men reported the lowest mean levels of psychological distress ( $M = 10.38$ ,  $S.E. = .23$ ). There were no differences across the eight subgroups for self-rated physical health after adjusting for age. However, a significant difference across all eight subgroups was noted in the unadjusted analyses of self-rated physical health ( $p < .001$ ; data not shown), with Mexican women reporting the lowest mean rating of self-rated physical health, and Cuban men reporting the highest mean rating of self-rated physical health. These findings suggest that age accounts for the difference in ratings of self-rated physical health among Latina/o subgroups, such that when adjusting for age, the group means become equal to each other.

Additionally, post-hoc analyses were conducted to examine whether there were significant mean differences on psychological distress between Mexican men and the other three groups of men, and if there were significant differences between Mexican women and the other three groups of women (see Tables 16 and 17, respectively). Only Puerto Rican men differed significantly from Mexican men on psychological distress; that is, Puerto Rican men reported significantly higher psychological distress ( $M = 12.59$ ,  $S.E. = .47$ ) than Mexican men ( $M = 10.38$ ;  $S.E. = .23$ ) before and after a Bonferroni correction<sup>20</sup>. Although Puerto Rican women reported significantly higher levels of psychological distress compared to Mexican women before a Bonferroni correction was applied, their means were no longer significantly different from each other after the Bonferroni correction ( $p > 1.0$ ).

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<sup>20</sup> A Bonferroni correction of alpha level .05/6 tests resulted in alphas having to meet the criteria of  $p < 0.008$ . This criterion was used for post-hoc analyses of all main study variables.

Weighted means and standard errors for all main variables for gender by subethnicity Latino subgroups are presented in Tables 16 and 17. First, it was hypothesized that overall, Cuban women would report the least amount of everyday discrimination and Puerto Rican men the highest level of self-reported everyday discrimination. Second, it was hypothesized that overall, Cuban men would report the highest levels of subjective social status in the U.S., whereas Puerto Rican men would report the lowest levels of subjective social status in the U.S. Design-adjusted Wald tests were performed to examine whether an overall difference existed for discrimination and subjective social status in the U.S. across all eight gender by subethnic groups. Significant gender by subethnic Latina/o subgroup differences across all groups were noted for both discrimination and subjective social status (see Tables 16 and 17).

*Hypothesis 1a:* My hypothesis that overall, Cuban women would report the least amount of discrimination and Puerto Rican men the highest levels of discrimination was supported (see Table 17). Overall, Cuban women reported the lowest mean levels of everyday discrimination ( $M = 13.22, S.E. = .47$ ), and Puerto Rican men the highest levels of everyday discrimination ( $M = 18.55, S.E. = .75$ ).

*Hypothesis 1b:* My hypothesis that Cuban men would report the highest levels of subjective social status and Puerto Rican men the lowest was not supported (see Table 16). That is, overall, Puerto Rican men reported the highest mean levels of subjective social status in the U.S. ( $M = 5.76, S.E. = .15$ ), whereas Mexican men reported the lowest mean levels of subjective social status in the U.S. ( $M = 5.24, S.E. = .12$ ).

*Exploratory Research Questions 1c & 1d:* Post-hoc analyses were conducted to examine whether there were significant mean differences on everyday discrimination and

subjective social status in the U.S. between Mexican men and the other three groups of men, and differences between Mexican women and the other three groups of women. Mexicans (men and women) were chosen as the reference groups, given they (a) have the largest sample size from all groups and (b) are the group that has been most studied in the literature. Thus, it was logical to use them as the reference group.

After a Bonferroni correction, only Cuban women differed from Mexican women on everyday discrimination, with Cuban women reporting significantly lower levels of discrimination compared to Mexican women (see Table 17). A marginally significant difference was noted for Cuban men compared to Mexican men (Bonferroni corrected  $p = 0.012$ ), with Cuban men reporting higher levels of discrimination than Cuban men (see Table 16). In terms of subjective social status, no group differences were noted for any group of men compared to Mexican men, or between any groups of women compared to Mexican women after a Bonferroni correction. However, before a correction was made, Puerto Rican men and Other Latino men differed significantly from Mexican men ( $p < .004$  and  $p < .044$ , respectively), with both groups reporting higher subjective social status than Mexican men. Cuban men were only marginally significantly different from Mexican men ( $p = 0.053$ ).

Figure 7 is presented to provide a pictorial representation of where the eight Latina/o subgroups in the study fell on “dimensions” of social marginality.

### **Distribution of Specific Types of Everyday Discrimination in the Total Sample**

Frequency distributions for the nine types (items) of everyday discrimination measured on the Everyday Discrimination/Unfair Treatment scale are presented in Table 18. Frequencies ranged from a high of 60.12% for being treated with less courtesy than

other people (25.90% less than once a year, 17.56% a few times a year, 8.22% a few times a month, 6.25% at least once a week, and 2.20% almost everyday) to a low of 27.85% for being threatened or harassed (22.60% less than once a year, 3.25% a few times a year, 0.76% a few times a month, 0.64% at least once a week, and 0.59% almost everyday). Item #4 (“People act like you are not smart”) had the highest percentage of respondents reporting it as an experience that occurred on a day-to-day basis.

### **Attributions of Experiences of Everyday Discrimination**

Table 19 presents the distribution of the reasons for perceived discrimination among respondents who reported any form of discrimination, and who also provided a reason for the discrimination experience (n= 1,636). Overall, the three most common reported reasons for discrimination were attributed to (1) Other Reason; (2) Ancestry/national origin/or ethnicity; and (3) Race. The “Height or Weight” and “Skin color” reasons were the two least commonly reported reasons for being discriminated (3.46% and 3.47%, respectively). It should be noted that respondents who said they felt discriminated against because of their income/educational level or sexual orientation were collapsed into the “Other” category<sup>21</sup>.

Tables 20 shows the distributions for reasons for discrimination based on gender by subethnicity. Results revealed that Cuban men, Puerto Rican men, and Puerto Rican women reported “Ancestry/national origin/or ethnicity” as their main reason for having been discriminated; whereas Cuban women, Mexican men and women, and Other Latino men and women reported “Other Reason” as their main reason for being discriminated. Of note, although the attribution of “gender or sex” for discrimination was not too

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<sup>21</sup> The collapsing of these categories was done for the public use dataset. Therefore, I do not know how many people actually gave these reasons as their response.

common across the subpopulations, among Cuban women, it was almost tied in as the third reason for being discriminated.

### **Path Model Fit for the Total Sample**

The hypothesized three-path mediated model was tested and supported. As can be seen from the fit statistics reported in Table 21, the hypothesized path model for the total sample had an excellent fit to the data [ $\chi^2(20, N = 2,554) = 59.37$ ], RMSEA = .028, CFI = .95, TLI = .89]. Based on the 90% C.I. values falling below .05, we can also reject the hypothesis of not close fit. As such, we can be confident that this is an appropriate plausible model, given that the 90% C.I.s were .02 and .04 for lower and upper bounds, respectively. With acceptable values of fit indices and statistically significant structural parameters, this model was retained for subsequent analyses (i.e., multiple-group analysis). Moreover, we can see from Table 22 that overall, the endogenous variables accounted for a fair proportion of the variance in the exogenous variables in the path model. Lastly, everyday discrimination, overall (sum of indirect effects), had a significant indirect effect on self-rated physical health (see Table 23)<sup>22</sup>. The standardized and unstandardized coefficients, as well as the significance for each of the direct effects in the model for the total sample are presented in Table 24.

### **Indirect Effects of Everyday Discrimination to Self-Rated Physical Health for the Total Sample**

*Hypothesis 2a:* I predicted that everyday discrimination would indirectly relate to self-rated physical health through both subjective social status and psychological distress (together in the same path). That is, I hypothesized that greater frequency of

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<sup>22</sup> The *Mplus* software calculates indirect effects and its standard errors, so there was no need to calculate the indirect effects on my own. *Mplus* uses the Sobel test to calculate these indirect effects, and uses the Delta method to calculate standard errors of the indirect effects.

discrimination would be associated with a lower subjective social status, which in turn would be associated with greater psychological distress and in turn, poorer self-rated physical health. This hypothesis was not supported (see Table 23). That is, the indirect path from discrimination to self-rated physical health through both perceived social status in the U.S. and psychological distress, while adjusting for age, sex, ethnicity, nativity, income, and work status was only marginally significant ( $p = .06$ ), despite that each variable in this specific indirect path was significantly associated with the other for path model and for notes section for specification and results of controls in the model). It is important to mention that non-significant indirect effects can still occur in the presence of significant separate direct effects, since the two regressions coefficients may be positively correlated, causing the denominator of the  $z$ -test to be large (*Mplus* discussion board, 2011).

Rather, support for my second hypothesis was found (see below). Additionally, an indirect effect of discrimination on self-rated physical health through subjective social status (independent of psychological distress) was present. That is, greater frequency of discrimination was associated with a lower perceived social status in the U.S., which in turn was associated with poorer self-rated physical health. However, important to note is that this indirect effect was a very weak effect.

*Hypothesis 2b:* My hypothesis regarding the two-path model for the total sample—that everyday discrimination would indirectly relate to self-rated physical health through psychological distress, independent of subjective social status was supported (see Table 23). It can be said that part of the total effect of discrimination on self-rated physical health is mediated by psychological distress. More specifically, everyday

discrimination was associated with increased psychological distress ( $\beta = .26$ ). In turn, greater psychological distress was associated with lower self-rated physical health ( $\beta = -.25$ ). This mediated effect can be interpreted as: Discrimination  $\rightarrow$  higher psychological distress  $\rightarrow$  lower self-rated physical health.

### **Direct Effects of Discrimination on Subjective Social Status in the U.S., Psychological Distress, and Self-Rated Physical Health for the Total Sample**

*Hypothesis 3a:* It was hypothesized that everyday discrimination would be directly (negatively) related to subjective social status in the U.S. This hypothesis was supported. Greater frequency of everyday discrimination was significantly associated with a lower subjective social status in the U.S. ( $\beta = -.07$ ), although a weak association.

*Hypothesis 3b:* It was hypothesized that discrimination would be directly (positively) related to psychological distress. This hypothesis was supported (see Table 24), such that greater frequency of discrimination significantly related to higher levels of psychological distress ( $\beta = .26$ ).

*Hypothesis 3c:* It was also hypothesized that everyday discrimination would be directly (negatively) related to self-rated physical health. The direct path from everyday discrimination to self-rated physical health was significant, but not in the hypothesized direction. That is, everyday discrimination was significantly positively associated with self-rated physical health ( $\beta = .08$ ), such that greater frequency of everyday discrimination was related to better self-rated physical health (see Table 24), instead of poorer self-rated physical health—a finding that is not consistent with the literature.

A closer look into these results suggests a suppression effect, given that in sensitivity analyses (i.e., where covariates were removed from the model--the unadjusted path model; data not shown), the relation between discrimination and self-rated physical

health was not significant. However, when covariates were added to the model, the relationship became significant, thereby making it possible that introducing covariates increased the predictive validity of discrimination (MacKinnon et al., 2000). Moreover, in some cases, confounders might reverse the direction of the effect. That is, a confounder must be associated with the exposure and outcome, and is a variable that is not affected by the exposure (e.g., age, gender, ethnicity). In this case, all these variables were associated with both the exposure and outcome. As noted later in the multiple-group analysis section, stratifying the sample by gender and subethnicity reveals findings that are more consistent with the literature regarding the relation between discrimination and self-rated physical health.

#### **Direct Effects of Subjective Social Status in the U.S. on Psychological Distress and Self-Rated Physical Health for the Total Sample**

*Hypothesis 4a:* Subjective social status in the U.S. was hypothesized to directly (negatively) associate with psychological distress. This hypothesis was supported (see Table 24). A higher perceived social status in the U.S. was significantly associated with lower levels of psychological distress ( $\beta = -.10$ ).

*Hypothesis 4b:* The hypothesis that subjective social status in the U.S. would directly (positively) relate to self-rated physical health was supported (see Table 24), such that a perceived higher social status in the U.S. was significantly related to better (higher) self-rated physical health ( $\beta = .09$ ).

#### **Direct Effect of Psychological Distress on Self-Rated Physical Health for the Total Sample**

*Hypothesis 5:* It was expected that psychological distress would directly (negatively) relate to self-rated physical health. This hypothesis was supported (see Table

24). Psychological distress was significantly associated with poorer (lower) self-rated physical health ( $\beta = -.25$ ).

### **Summary of Path Model Findings**

The proposed three-path mediated model was found to have an adequate fit to the data. More specifically, although the path from discrimination to self-rated physical health (through subjective social status and psychological distress) was not significant, psychological distress and subjective social status in the U.S. each independently partially mediated the relation between everyday discrimination and self-rated physical health. That is, everyday discrimination is associated with a lower subjective social status in the U.S. as well as with greater psychological distress. These two mechanisms are in turn associated with poor self-reported physical health, though independent from each other. See Figure 8 for a diagram of the significant indirect paths from discrimination to self-rated physical health for the total sample.

### **Multiple-Group Path Model for Gender by Ethnicity: Moderated Mediation**

*Hypothesis 6:* It was hypothesized that gender and ethnicity (together) would moderate the overall model paths. That is, it was expected that there would be significant differences in parameter estimates between the Latina/o subgroups for the overall three-path model (i.e., moderated mediation would occur). This hypothesis was supported (see Table 25). Gender and ethnicity (together) moderated the overall model paths.

The unconstrained path model (where all parameters were allowed to vary between the eight groups) based on gender by ethnicity provided an adequate fit to the data [ $\chi^2(96, N_{\text{Cuban men}} = 276; N_{\text{Cuban women}} = 301; N_{\text{Puerto Rican men}} = 213; N_{\text{Puerto Rican women}} = 282; N_{\text{Mexican men}} = 298; N_{\text{Mexican women}} = 470; N_{\text{Other Latino men}} = 240; N_{\text{Other Latino women}} = 374)$ ]

= 175.93, RMSEA = .05, CFI = .92, TLI = .82]. Interestingly, the exogenous variables accounted for a greater proportion of the variance in measures in the path model for Cuban men, Cuban women, Puerto Rican men, and Other Latino women (see Tables 26 and 27). Moreover, the invariant path model did not provide as good of a fit [ $\chi^2$  (194,  $N_{\text{Cuban men}} = 276$ ;  $N_{\text{Cuban women}} = 301$ ;  $N_{\text{Puerto Rican men}} = 213$ ;  $N_{\text{Puerto Rican women}} = 282$ ;  $N_{\text{Mexican men}} = 298$ ;  $N_{\text{Mexican women}} = 470$ ;  $N_{\text{Other Latino men}} = 240$ ;  $N_{\text{Other Latino women}} = 374$ ) = 348.950, RMSEA = .05, CFI = .84, TLI = .83] when compared to the fit statistics of the unconstrained model, especially when considering the drop in chi-square from constrained to unconstrained path models (see Table 25).

Overall, the results from the log-likelihood chi-squared test of differences (nested models) for the multiple group gender by ethnicity comparison suggests that making the structural parameters equal across the eight groups resulted in a statistically significant worsening of overall model fit. Indeed, the fully unconstrained model fit significantly better, as evidenced by the statistically significant change in chi-square ( $\Delta \chi^2 = 173.02$ ,  $\Delta df = 98$ ;  $p < .05$ ). Thus, the groups should not be constrained to be equal. As such, we reject the null hypothesis that the paths (as a whole) are the same for these groups. Tables 28 and 29 show the unstandardized estimates of each parameter in the path model for the eight gender by ethnicity groups, and Tables 32 through 35 show estimates of covariates associated with main study variables in the path model.

In terms of the indirect effects, everyday discrimination, overall (sum of indirect effects), had a significant indirect effect on self-rated physical health for all the groups

except Cuban males and Cuban females (see Tables 30 and 31)<sup>23</sup>. Consistent with the total sample results, psychological distress partially mediated the relation between discrimination and self-rated physical health for all gender by subethnic Latino subgroups, with the exception of Cuban and Puerto Rican males. That is, for all groups except Cuban and Puerto Rican males, greater frequency of discrimination was related to greater psychological distress. In turn, psychological distress was related to lower self-rated physical health (DISC → higher Psychological Distress → lower SRPH). Moreover, similar to the path model for the total sample, Puerto Rican males had a significant indirect effect of discrimination to self-rated physical health through subjective social status in the U.S. That is, perceived social status in the U.S. partially mediated the relation between discrimination and self-rated physical health for Puerto Rican males, such that greater frequency of discrimination was related to lower perceived social status in the U.S. In turn, a perceived lower social status in the U.S. was related to lower self-rated physical health (Discrimination → lower social status → lower self-rated physical health). See Tables 30 and 31 for all indirect effects across all eight subgroups. See also Figure 9 for summary diagrams of significant indirect effects for Latina/o subgroups.

Table 36 summarizes the findings for the direct and indirect effects in the proposed model for the total sample and for gender by ethnicity.

### **Targeted Moderation for Parameters in Path Model**

Although it was hypothesized that gender and ethnicity together would moderate the overall model paths, the effects for the parameters were hypothesized to differ across

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<sup>23</sup> It should be noted that although significant direct effects were noted for all groups, it is possible to have a non-significant total effect in the presence of statistically significant direct effects. This is particularly the case for path models with multiple mediating variables, since the multiple mediating paths may actually cancel each other out (Hayes, 2009).

Latina/o subgroups. That is, it was expected that the strength of the association between variables in the three-path model would depend on both gender and ethnicity. Table 37 provides a summary of findings for the targeted moderation analyses before and after the Holm test  $p$  value adjustment.

*Hypothesis 6a:* The effect of everyday discrimination on subjective social status in the U.S. was hypothesized to be greater for those groups who are most socially and economically marginalized in the U.S. (i.e., Puerto Rican men/women and Mexican men/women) compared to those who hold relatively less marginalized positions (i.e., Cuban men and women). This hypothesis was partially supported (see Table 38). Results revealed that group membership has both a buffering and exacerbating effect on the relation between discrimination and social status (see Figure 8). That is, at every level of perceived discrimination, being a Cuban male was associated with higher levels of subjective social status in the U.S. compared to Puerto Rican women, holding all other variables constant. An exacerbating effect was noted for Puerto Rican women, such that perceived discrimination was associated with a much lower subjective social status in the U.S. across all levels of discrimination compared to Cuban men, holding all other variables constant. Moreover, although the test of difference in slopes between Cuban men and Puerto Rican men and Cuban men and Mexican women; and Cuban women versus Puerto Rican men and women was significant before the Holm test adjustment, this was no longer the case after the corrected  $p$  value criterion was applied.

*Hypothesis 6b:* The effect of discrimination on psychological distress was hypothesized to be greater for women in all groups (e.g., Cuban, Mexican, Puerto Rican,

and Other Latino women) when compared to Latina/o men in each of the subgroups<sup>24</sup>. This hypothesis was partially supported (see Table 38). That is, the relation between discrimination and psychological distress is dependent on Latina/o subgroup membership (e.g., gender x ethnicity). More specifically, results revealed that the effect of discrimination on psychological distress is more strongly associated with psychological distress for Mexican women than it is for Cuban men across all levels of discrimination, holding all other variables in the model constant (see Figure 9). Indeed, one can also notice that the slope for Cuban men is close to being flat. Additionally, there was a significant difference in slopes between Mexican women and Puerto Rican men, and Other Latino women and Cuban men, with the effect of discrimination on psychological distress being greater for Mexican women and Other Latino women compared to the respective groups; however, this was only observed before the Holm test adjustment.

*Hypothesis 6c:* It was hypothesized that the effect of discrimination on self-rated physical health would be greater for women in all groups (i.e., Cuban, Mexican, Puerto Rican, and Other Latino men) compared to Latino male subgroups. This hypothesis was not supported (see Table 38). After applying the Holm test adjustment, all product-term coefficients were considered nonsignificant. However, before the adjustment, results revealed both buffering and exacerbating effects on the relation between discrimination and self-rated physical health between specific groups.

*Hypothesis 6d:* The hypothesis that the effect of subjective social status in the U.S. on psychological distress would be greater for Cuban men and women than for all

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<sup>24</sup> Contrasts for women compared to men in their respective groups were not examined given these analyses have been conducted elsewhere (Molina, Mahalingam, & Alegría, under revision). Results revealed that the effect of discrimination on psychological distress was greater for Cuban women compared to Cuban men. No significant differences were found for Puerto Rican men/women, Mexican men/women and Other Latino men/women contrasts.

other Latina/o subgroups was not supported (see Table 39). Results showed that before the Holm test adjustment, higher subjective social status was associated with much lower psychological distress for Cuban women compared to Mexican women. However, applying the Holm test adjustment made this interaction term nonsignificant ( $p = .198$ ). Moreover, my hypothesis that the effect of subjective social status on psychological distress would be greater for Cuban women compared to Cuban men was not supported.

*Hypothesis 6e:* The hypothesis that the effect of subjective social status in the U.S. on self-rated physical health would be greater for Cuban men and women than for all other Latina/o subgroups was not supported (see Table 39). The effect of subjective social status on self-rated physical health was stronger for Cuban women compared to Mexican women, Mexican men, and Puerto Rican only before the Holm test adjustment. No significant differences before and after adjustment were noted for Cuban men compared to any other group. Moreover, the hypothesis that the effect of subjective social status would be greater for Cuban men compared to Cuban women was not supported. Interestingly, before the Holm test adjustment, a test of difference in slopes between Cuban men and women was significant ( $p < .05$ ), with the effect being greater for Cuban women; that is, increases in subjective social status were associated with better self-rated physical health among Cuban women compared to Cuban men.

*Hypothesis 6f:* The hypothesis that the effect of psychological distress on self-rated physical health would be greater for Puerto Rican men and women compared to the rest of the other Latina/o subgroups was not supported (see Table 40). Before the Holm test adjustment this effect was greater for Puerto Rican men and women compared to Cuban men ( $P_s < .05$ ). However, these interaction terms became nonsignificant for after

adjustment. Moreover, the hypothesis that the effect of psychological distress would be greater for Puerto Rican women compared to Puerto Rican men was not supported.

See Figure 12 for a diagram representing the final three-path moderated-mediated model for the total sample. This diagram presents the findings resulting from the total sample, and includes the significant and non-significant moderating effects that were obtained with the linear regressions.

### **Alternate Post-hoc Multiple-Group Path Models**

Given there was a significant difference in model fit when constraining all eight groups to be equal, and that some groups were more likely to differ from the rest on specific parameters once tests of moderation were conducted, there was reason to believe that some of the groups in particular would be driving the difference. As such, I examined the chi-square contribution for each group in order to see for which group the model was most likely not fitting well relative to the others. In doing so, results showed that Cuban women had the highest chi-square contribution and Other Latino women the second highest chi-square contribution relative to the other Latino gender by subethnic subgroups (Cuban men  $\chi^2 = 7.15$ ; Cuban women  $\chi^2 = 45.91$ ; Puerto Rican men  $\chi^2 = 16.83$ ; Puerto Rican women  $\chi^2 = 23.25$ ; Mexican men  $\chi^2 = 10.02$ ; Mexican women  $\chi^2 = 10.18$ ; Other Latino men  $\chi^2 = 26.74$ ; Other Latino women  $\chi^2 = 35.85$ ). Therefore, I decided to conduct exploratory (post-hoc) multiple-group path analyses to test whether Cuban women were significantly different from all other Latino subgroups, and whether Other Latino women were significantly different from all other Latino subgroups in overall model fit. If the null hypothesis that the paths (as a whole) are the same for any one of these groups (i.e., Cuban women or Other Latino women) compared to all other

Latino subgroups, then I can be confident that the significant difference in overall paths seen for the multiple group path analysis by gender by ethnicity is probably being driven by one of these groups.

Results from the multiple group path analysis comparing Cuban women with All Other Latino subgroups showed that the unconstrained path model provided an adequate fit to the data [ $\chi^2(24, N_{\text{Cuban women}} = 301; N_{\text{All Other Latino Subgroups}} = 2,253) = 74.14$ , RMSEA = .04, CFI = .93, TLI = .85]. As well, the 90% C.I. values provided evidence to reject the hypothesis of not close fit, since lower and upper bound values fell below .05 (see Table 41). Overall, the results from the likelihood chi-squared test of differences (nested models) for the multiple group comparison suggests that making the structural parameters equal across Cuban women and All Other Latino subgroups resulted in a statistically significant worsening of overall model fit (see Table 40). Indeed, the fully unconstrained model fit significantly better, as evidenced by the statistically significant change in chi-square ( $\Delta \chi^2 = 40.86$ ,  $\Delta df = 14$ ;  $p < .05$ ). As such, we reject the null hypothesis that the paths (as a whole) are the same for Cuban women and all other Latinos. However, it is important to note that the invariant path model did not provide an exactly poor fit to the data either (see Table 41). Refer to Tables 42 and 43 for results of constrained and unconstrained indirect and direct effects, respectively). See Table 44 for results of covariates in the path model for Cuban women and All Other Latina/o subgroups.

To ensure that it was Cuban women and not Other Latino women who were driving the difference in the 8 multiple-group comparisons, a chi-squared test of difference (nested models) was conducted between Other Latino women and All Other Latino subgroups. Results revealed that making the structural parameters equal across the

Other Latino women and All Other Latino subgroups did not result in a statistically significant worsening of overall model fit [ $\chi^2(38, N_{\text{Other Latino women}} = 374; N_{\text{All Other Latino Subgroups}} = 2,180) = 79.68$ , RMSEA = .03, CFI = .94, TLI = .91]. As such, we failed to reject the null hypothesis that the paths (as a whole) were different between Other Latino women and All Other Latino subgroups (see Table 41). As well, the 90% C.I. values provided evidence to reject the hypothesis of not close fit, since lower and upper bound values fell below .05. See Tables 44 and 45 for results of constrained and unconstrained indirect and direct effects, respectively). See Table 47 for results of covariates in the path model for Other Latino women and All Other Latina/o subgroups.

It is important to note a few things. First, these are only exploratory analyses. Moreover, it is significant to point out the difference in sample size between the groups. For example, the “All Other Latino subgroups” seem to be dominating the constraints. We can see this in the results for the direct effect of subjective social status in the U.S. on psychological distress for Other Latino women and All Other Latino subgroups (see Table 46), wherein the standard error for the Other Latino women is much larger than that of the All Other Latino subgroups, despite that the parameter estimates are quite similar. Similar results can be noted for the direct effect of everyday discrimination on subjective social status in the U.S. between Cuban women and All Other Latino subgroups (see Table 43). Clearly, standard errors are sensitive to sample size, and  $p$ -values are sensitive to standard errors. Hence, the size of the test value will be influenced by the size of the sample (Shroeder et al., 1986). In effect then, the larger standard errors noted for the Other Latino women and Cuban women seem to be making the direct effect of subjective social status on psychological distress, and everyday discrimination on

subjective social status in the U.S., respectively, non-significant. On the other hand, smaller standard errors, but yet similar parameter estimates, produced significant  $p$ -values for the aforementioned direct effects for the All Other Latino subgroups. Given this, we have to be cautious in interpreting these results, since the statistical program figures out the best possible number for compromise between the two groups in order to make the chi-square of the groups more equal. Thus, if the two subgroups being compared had similar sample sizes, this would most likely result in different compromise numbers for the constrained parameters.

**Table 6. Weighted Intercorrelations of Main Study Variables for the Total Sample**

	1.	2.	3.	4.
1. Everyday Discrimination	--	-.05	.24***	.06*
2. Subjective Social Status in the U.S.	--	--	-.12***	.14***
3. Psychological Distress	--	--	--	-.24***
4. Self-Rated Physical Health	--	--	--	--

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

**Table 7. Weighted Intercorrelations of Main Study Variables for Cuban Women and Cuban Men**

	1.	2.	3.	4.
1. Everyday Discrimination	--	0.07	0.05	-0.19*
2. Subjective Social Status in the U.S.	0.08	--	-0.23**	0.22***
3. Psychological Distress	0.24*	-0.28**	--	-0.40***
4. Self-Rated Physical Health	-0.15	0.35***	-0.49***	--

**Note.** Correlations for Cuban women are below the diagonal; correlations for Cuban men are above the diagonal.

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

**Table 8. Weighted Intercorrelations of Main Study Variables for Puerto Rican Women and Puerto Rican Men**

	1.	2.	3.	4.
1. Everyday Discrimination	--	-0.20	0.13	-0.001
2. Subjective Social Status in the U.S.	-0.14*	--	-0.22***	0.26**
3. Psychological Distress	0.18*	-0.19*	--	-0.34***
4. Self-Rated Physical Health	0.04	0.09	-0.29*	--

**Note.** Correlations for Puerto Rican women are below the diagonal; correlations for Puerto Rican men are above the diagonal.

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

**Table 9. Weighted Intercorrelations of Main Study Variables for Mexican Women and Mexican Men**

	1.	2.	3.	4.
1. Everyday Discrimination	--	-0.08	0.27***	0.08
2. Subjective Social Status in the U.S.	-0.04	--	-0.15**	0.14*
3. Psychological Distress	0.33***	-0.12**	--	-0.23***
4. Self-Rated Physical Health	-0.04	0.17**	-0.22***	--

**Note.** Correlations for Mexican women are below the diagonal; correlations for Mexican men are above the diagonal.

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

**Table 10. Weighted Intercorrelations of Main Study Variables for Other Latino Women and Other Latino Men**

	1.	2.	3.	4.
1. Everyday Discrimination	--	-0.08	0.33**	0.13
2. Subjective Social Status in the U.S.	0.09	--	-0.10	0.05
3. Psychological Distress	0.20*	-0.05	--	-0.13
4. Self-Rated Physical Health	0.08	0.06	-0.25***	--

**Note.** Correlations for Other Latino women are below the diagonal; correlations for Other Latino men are above the diagonal.

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

**Table 11. Weighted Sociodemographic Characteristics for Total Sample and by Gender**

<b>Demographic Variables</b>	<b>Total</b> ( <i>n</i> = 2,554)	<b>Males</b> ( <i>n</i> = 1,127)	<b>Females</b> ( <i>n</i> = 1,427)	<b><i>p</i>†</b>
	% ( <i>SE</i> )	% ( <i>SE</i> )	% ( <i>SE</i> )	
<i>Age, years</i>				0.12
18-24	20.6 (.01)	22.0 (.02)	19.3 (.02)	
25-34	28.4 (.01)	29.5 (.02)	27.1 (.01)	
35-44	22.2 (.01)	22.5 (.01)	21.9 (.01)	
45-54	15.0 (.01)	14.3 (.01)	15.6 (.01)	
55-64	6.3 (.01)	5.5 (.01)	7.1 (.01)	
65 and over	7.6 (.01)	6.1 (.01)	9.0 (.01)	
<i>Nativity</i>				0.97
US-born	42.8 (.02)	42.7 (.02)	42.8 (.03)	
Foreign-born	57.2 (.02)	57.3 (.02)	57.2 (.03)	
<i>Education, years</i>				0.59
0-11	44.1 (.02)	43.4 (.02)	44.9 (.02)	
12	24.5 (.01)	25.7 (.01)	23.2 (.01)	
13-15	21.1 (.01)	20.9 (.02)	21.4 (.02)	
≥16	10.2 (.01)	10.0 (.01)	10.5 (.01)	
<i>Income</i>				< .001
≤\$15,000	27.2 (.02)	22.7 (.02)	31.9 (.03)	
\$15,000-34,999	28.3 (.01)	27.0 (.02)	29.7 (.01)	
\$35,000-74,999	27.8 (.02)	31.3 (.03)	24.2 (.02)	
≥\$75,000	16.6 (.01)	19.0 (.02)	14.2 (.01)	
<i>Marital Status</i>				< .001
Married/Cohabiting	64.2 (.01)	68.9 (.02)	59.2 (.02)	
D/W/S	14.4 (.01)	8.1 (.01)	21.1 (.01)	
Never Married	21.4 (.01)	22.9 (.01)	19.7 (.02)	
<i>Employment Status</i>				< .001
Employed	63.1 (.02)	75.0 (.02)	50.5 (.02)	
Unemployed	7.5 (.01)	7.5 (.01)	7.5 (.01)	
Out of Labor Force	29.4 (.02)	17.5 (.02)	42.0 (.02)	

**Note.** D/W/S= Divorced/Widowed/Separated. †*p* value from Rao-Scott statistic for the Pearson chi-square test of difference for contingency tables.

**Table 12. Weighted Sociodemographic Characteristics for Subethnic Groups**

<b>Demographic Variables</b>	<b>Cubans (n = 577)</b>	<b>Mexicans (n = 868)</b>	<b>Puerto Ricans (n = 495)</b>	<b>Other Latinos (n = 614)</b>	<b>p#</b>
	<b>% (SE)</b>	<b>% (SE)</b>	<b>% (SE)</b>	<b>% (SE)</b>	
<i>Age, years</i>					0.85
18-24	20.7 (.03)	20.7 (.02)	20.7 (.03)	20.7 (.02)	
25-34	28.4 (.03)	28.4 (.02)	28.4 (.03)	28.4 (.02)	
35-44	22.1 (.02)	22.4 (.01)	22.4 (.02)	22.0 (.02)	
45-54	12.1 (.01)	15.8 (.02)	13.3 (.01)	14.2 (.02)	
55-64	9.3 (.01)	5.2 (.01)	7.7 (.01)	7.4 (.02)	
65 and over	7.5 (.01)	7.5 (.01)	7.5 (.03)	7.5 (.02)	
<i>Nativity</i>					< .01
US-born	23.6 (.03)	43.6 (.04)	58.6 (.03)	38.7 (.03)	
Foreign-born	76.4 (.03)	56.4 (.04)	41.4 (.03)	61.3 (.03)	
<i>Education, years</i>					< .001
0-11	21.0 (.02)	53.1 (.02)	32.6 (.03)	34.2 (.02)	
12	27.2 (.02)	23.7 (.01)	30.0 (.02)	23.6 (.02)	
13-15	26.5 (.02)	15.9 (.02)	26.5 (.02)	28.6 (.02)	
≥16	25.3 (.03)	7.3 (.01)	10.9 (.02)	13.6 (.02)	
<i>Income</i>					< .05
≤\$15,000	21.9 (.03)	29.6 (.03)	25.9 (.02)	23.7 (.02)	
\$15,000-34,999	23.9 (.03)	30.8 (.02)	22.4 (.02)	26.2 (.03)	
\$35,000-74,999	25.9 (.02)	26.2 (.03)	29.5 (.02)	30.9 (.03)	
≥\$75,000	28.2 (.04)	13.4 (.01)	22.2 (.02)	19.2 (.03)	
<i>Marital Status</i>					< .001
Married/Cohabiting	60.6 (.03)	69.7 (.03)	54.0 (.03)	57.5 (.02)	
D/W/S	17.0 (.02)	12.2 (.01)	17.4 (.03)	17.3 (.02)	
Never Married	22.4 (.02)	18.1 (.02)	29.0 (.02)	25.2 (.02)	
<i>Employment Status</i>					0.22
Employed	67.0 (.02)	61.8 (.03)	60.0 (.03)	66.1 (.02)	
Unemployed	6.3 (.01)	7.0 (.01)	7.3 (.02)	9.0 (.01)	
Out of Labor Force	26.7 (.03)	31.2 (.03)	32.7 (.04)	24.9 (.02)	

**Note.** D/W/S= Divorced/Widowed/Separated. #p value from Rao-Scott statistic for the Pearson chi-square test of difference for contingency tables. Tests of differences are across the four subethnic groups.

**Table 13. Weighted Sociodemographic Characteristics for Gender by Subethnic Subgroups: Latino Males**

Demographic Variables	Cuban Men (n = 276)	Mexican Men (n = 398)	Puerto Rican Men (n = 213)	Other Latino Men (n = 240)	<i>p</i> <sup>#</sup>
	% (SE)	% (SE)	% (SE)	% (SE)	
<i>Age, years</i>					0.85
18-24	22.0 (.05)	22.0 (.03)	22.0 (.03)	22.0 (.03)	
25-34	29.5 (.03)	29.5 (.02)	29.5 (.03)	29.5 (.03)	
35-44	20.9 (.03)	22.4 (.02)	22.3 (.02)	23.0 (.03)	
45-54	12.8 (.02)	15.5 (.02)	12.6 (.02)	12.9 (.03)	
55-64	8.6 (.01)	4.5 (.01)	7.4 (.01)	6.4 (.02)	
65 and over	6.1 (.01)	6.1 (.01)	6.1 (.03)	6.1 (.02)	
<i>Nativity</i>					< .01
US-born	23.0 (.04)	43.0 (.04)	56.5 (.03)	40.6 (.04)	
Foreign-born	77.0 (.04)	57.0 (.04)	43.5 (.03)	59.4 (.04)	
<i>Education, years</i>					< .001
0-11	23.2 (.03)	52.7 (.03)	29.3 (.04)	33.3 (.04)	
12	25.8 (.04)	25.4 (.02)	32.4 (.03)	23.7 (.03)	
13-15	25.6 (.04)	14.5 (.03)	27.8 (.03)	30.3 (.03)	
≥16	25.4 (.04)	7.3 (.01)	10.5 (.02)	12.6 (.02)	
<i>Income</i>					< .001
≤\$15,000	15.8 (.03)	24.1 (.03)	20.9 (.03)	21.5 (.03)	
\$15,000-34,999	26.1 (.04)	30.3 (.03)	24.3 (.03)	21.8 (.04)	
\$35,000-74,999	27.1 (.03)	29.1 (.03)	31.8 (.04)	36.0 (.05)	
≥\$75,000	31.0 (.05)	16.4 (.02)	23.0 (.04)	20.7 (.04)	
<i>Marital Status</i>					< .001
Married/Cohabiting	59.5 (.04)	75.6 (.02)	56.1 (.04)	61.8 (.03)	
D/W/S	14.8 (.02)	5.8 (.01)	13.2 (.03)	9.8 (.02)	
Never Married	25.7 (.04)	18.5 (.01)	30.7 (.04)	28.4 (.03)	
<i>Employment Status</i>					< .001
Employed	77.6 (.03)	77.5 (.03)	65.6 (.04)	73.2 (.04)	
Unemployed	8.3 (.02)	6.0 (.02)	8.5 (.03)	9.9 (.02)	
Out of Labor Force	14.1 (.03)	16.5 (.03)	25.9 (.04)	16.9 (.03)	

**Note.** D/W/S= Divorced/Widowed/Separated. <sup>#</sup>*p* value from Rao-Scott statistic for the Pearson chi-square test of difference for contingency tables. Tests of difference are across all 8 gender X subethnic groups, not just across Latino males.

**Table 14. Weighted Sociodemographic Characteristics for Gender by Subethnic Subgroups: Latino Females**

<b>Demographic Variables</b>	<b>Cuban Women (n = 301)</b>	<b>Mexican Women (n = 470)</b>	<b>Puerto Rican Women (n = 282)</b>	<b>Other Latino Women (n = 374)</b>	<b>p<sup>‡</sup></b>
	<b>% (SE)</b>	<b>% (SE)</b>	<b>% (SE)</b>	<b>% (SE)</b>	
<i>Age, years</i>					0.85
18-24	19.3 (.04)	19.3 (.02)	19.3 (.04)	19.3 (.02)	
25-34	27.1 (.03)	27.1 (.02)	27.1 (.05)	27.1 (.03)	
35-44	23.2 (.03)	22.4 (.02)	22.5 (.03)	20.6 (.02)	
45-54	11.2 (.02)	16.1 (.02)	14.1 (.02)	15.6 (.02)	
55-64	10.1 (.01)	6.1 (.01)	8.0 (.02)	8.3 (.02)	
65 and over	9.0 (.02)	9.0 (.02)	9.0 (.03)	9.0 (.02)	
<i>Nativity</i>					< 0.01
US-born	24.2 (.05)	44.3 (.05)	60.8 (.04)	36.5 (.04)	
Foreign-born	75.8 (.05)	55.7 (.05)	39.2 (.04)	63.5 (.04)	
<i>Education, years</i>					< .001
0-11	18.7 (.03)	53.6 (.02)	36.1 (.03)	35.0 (.02)	
12	28.5 (.03)	21.9 (.01)	27.6 (.03)	23.4 (.03)	
13-15	27.5 (.03)	17.4 (.02)	25.1 (.03)	26.8 (.03)	
≥16	25.2 (.04)	7.1 (.01)	11.2 (.02)	14.7 (.02)	
<i>Income</i>					< .001
≤\$15,000	28.5 (.04)	35.3 (.05)	31.2 (.02)	26.1 (.02)	
\$15,000-34,999	21.7 (.03)	31.4 (.02)	20.4 (.03)	30.8 (.03)	
\$35,000-74,999	24.5 (.04)	23.1 (.03)	27.0 (.04)	25.3 (.02)	
≥\$75,000	25.3 (.05)	10.2 (.01)	21.4 (.03)	17.8 (.03)	
<i>Marital Status</i>					< .001
Married/Cohabiting	61.8 (.02)	63.4 (.03)	51.8 (.04)	52.9 (.02)	
D/W/S	19.2 (.02)	19.0 (.02)	21.9 (.04)	25.4 (.02)	
Never Married	19.0 (.02)	17.5 (.02)	26.2 (.03)	21.7 (.02)	
<i>Employment Status</i>					< .001
Employed	55.6 (.03)	45.3 (.03)	54.1 (.04)	58.6 (.02)	
Unemployed	4.2 (.02)	7.8 (.01)	5.9 (.01)	7.9 (.01)	
Out of Labor Force	40.2 (.03)	46.9 (.03)	39.9 (.04)	33.4 (.02)	

**Note.** D/W/S= Divorced/Widowed/Separated. <sup>‡</sup>p value from Rao-Scott statistic for the Pearson chi-square test of difference for contingency tables. Tests of difference are across all 8 gender X subethnic groups, not just across Latino females.

**Table 15. Weighted Means of Main Study Variables for the Total Sample**

<b>Variable</b>	<b>M (S.E.)</b>
Everyday Discrimination	16.36 (.30)
Subjective Social Status in the U.S.	5.49 (.07)
Psychological Distress	11.72 (.22)
Self-Rated Physical Health <sup>a</sup>	3.24 (.01)

**Note.** <sup>a</sup>The mean of self-rated physical health is age-adjusted.

**Table 16. Weighted Means of Main Study Variables for Latino Male Subgroups**

	<b>Cuban Men</b>	<b>Puerto Rican Men</b>	<b>Mexican Men</b>	<b>Other Latino Men</b>	<b><i>p</i>†</b>
<b>Variable</b>	<b>M (S.E.)</b>	<b>M (S.E.)</b>	<b>M (S.E.)</b>	<b>M (S.E.)</b>	
Everyday Discrimination	14.53 (.64)	18.55 (.75)	16.87 (.62)	17.99 (.80)	< .001
Subjective Social Status in the U.S.	5.68 (.64)	5.76 (.15)	5.24 (.12)	5.72 (.17)	< .05
Psychological Distress	10.43 (.29)	12.59 (.47)***	10.38 (.23)	10.77 (.43)	< .001
Self-Rated Physical Health	3.25 (.08)	3.25 (.04)	3.27 (.03)	3.26 (.04)	0.08

**Note.** †Adjusted Wald tests were used to identify differences across all 8 gender by ethnic groups for each of the variables (omnibus test). The means for self-rated physical health are age-adjusted.

\*\*\*Differ significantly from Mexican men at  $p < .001$  with Bonferroni correction.

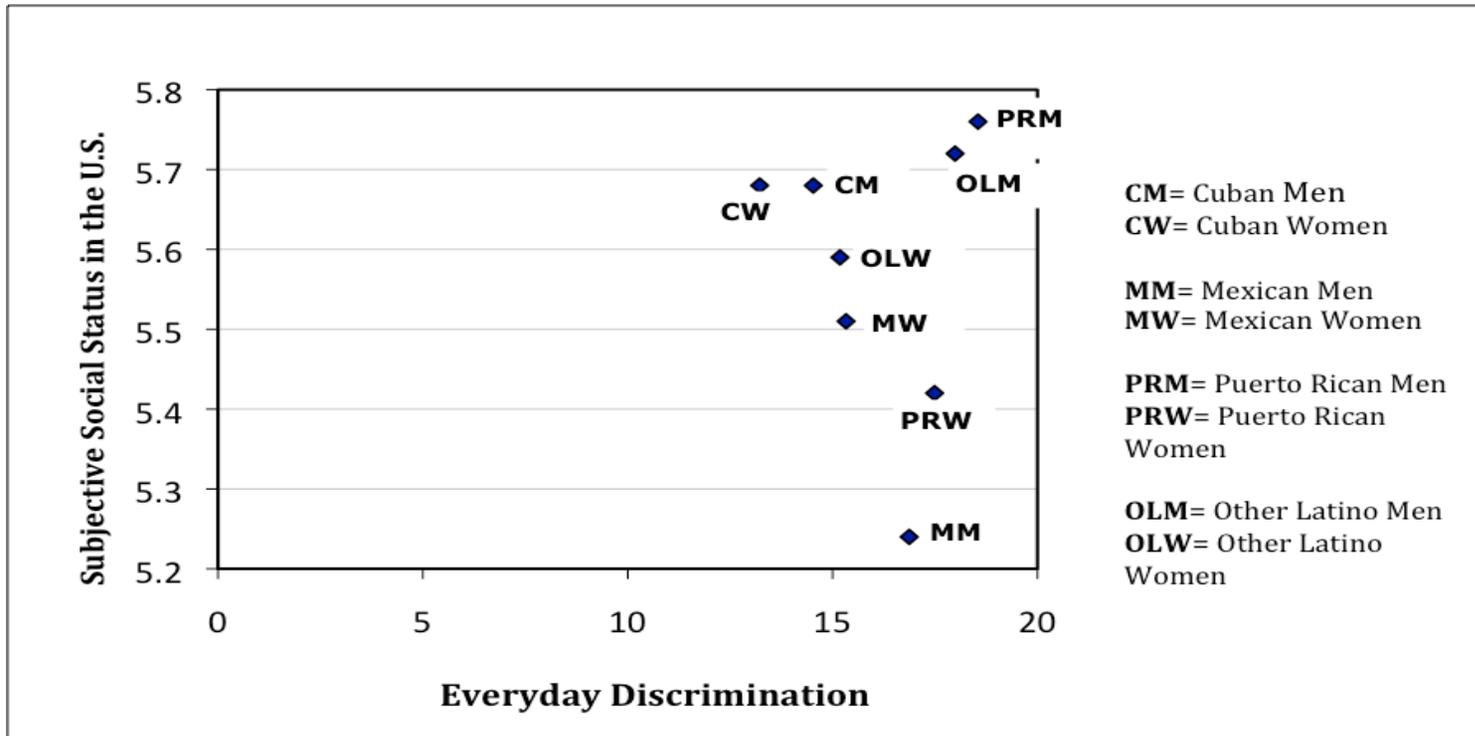
**Table 17. Weighted Means of Main Study Variables for Latino Female Subgroups**

	<b>Cuban Women</b>	<b>Puerto Rican Women</b>	<b>Mexican Women</b>	<b>Other Latino Women</b>	<b><i>p</i>†</b>
Variable	M (S.E.)	M (S.E.)	M (S.E.)	M (S.E.)	
Everyday Discrimination	13.22 (.47)**	17.49 (.49)	15.33 (.40)	15.18 (.49)	< .001
Subjective Social Status in the U.S.	5.68 (.23)	5.42 (.10)	5.51 (.10)	5.59 (.09)	< .05
Psychological Distress	12.85 (.66)	14.10 (.53)	12.37 (.40)	13.11 (.46)	< .001
Self-Rated Physical Health	3.21 (.04)	3.22 (.04)	3.24 (.04)	3.22 (.03)	0.08

**Note.** †Adjusted Wald tests were used to identify differences across all 8 gender by ethnic groups for each of the variables (omnibus test). The means for self-rated physical health are age-adjusted.

\*\*Differ significantly from Mexican women at  $p < .01$  with Bonferroni correction.

Figure 7. Dimensions of Social Marginality by Latina/o Subgroups



**Table 18. Weighted Distribution of Specific Type of Self-Reported Everyday Discrimination**

<b>Item 1: You are treated with less courtesy than other people</b>		
<b>Response</b>	<b>Proportions</b>	<b>Observations</b>
Never	39.88%	1091
Less than once a year	25.90%	646
A few times a year	17.56%	421
A few times a month	8.22%	197
At least once a week	6.25%	137
Almost everyday	2.20%	51
Total	100%	2543

<b>Item 2: You are treated with less respect than others</b>		
<b>Response</b>	<b>Proportions</b>	<b>Observations</b>
Never	44.86%	1237
Less than once a year	25.83%	638
A few times a year	17.17%	407
A few times a month	5.50%	132
At least once a week	4.14%	87
Almost everyday	2.49%	46
Total	100%	2547

<b>Item 3: You receive poorer restaurant service than others</b>		
<b>Response</b>	<b>Proportions</b>	<b>Observations</b>
Never	48.96%	1334
Less than once a year	26.78%	662
A few times a year	15.61%	363
A few times a month	5.59%	126
At least once a week	2.08%	47
Almost everyday	0.98%	16
Total	100%	2548

<b>Item 4: People act like you are not smart</b>		
<b>Response</b>	<b>Proportions</b>	<b>Observations</b>
Never	48.14%	1312
Less than once a year	23.76%	591
A few times a year	16.25%	379
A few times a month	6.05%	130
At least once a week	3.00%	66
Almost everyday	2.80%	66
Total	100%	2544

<b>Item 5: People act afraid of you</b>		
<b>Response</b>	<b>Proportions</b>	<b>Observations</b>
Never	61.37%	1654
Less than once a year	21.18%	508
A few times a year	9.50%	215
A few times a month	3.85%	77
At least once a week	2.17%	44
Almost everyday	1.94%	44
Total	100%	2542

<b>Item 6: People act like you are dishonest</b>		
<b>Response</b>	<b>Proportions</b>	<b>Observations</b>
Never	61.35%	1630
Less than once a year	24.74%	613
A few times a year	8.53%	191
A few times a month	2.51%	52
At least once a week	1.50%	27
Almost everyday	1.37%	27
Total	100%	2540

<b>Item 7: People act better than you</b>		
<b>Response</b>	<b>Proportions</b>	<b>Observations</b>
Never	52.08%	1418
Less than once a year	22.30%	564
A few times a year	15.92%	359
A few times a month	4.54%	103
At least once a week	2.71%	49
Almost everyday	2.45%	50
Total	100%	2543

<b>Item 8: People act afraid of you</b>		
<b>Response</b>	<b>Proportions</b>	<b>Observations</b>
Never	64.97%	1744
Less than once a year	21.91%	527
A few times a year	7.19%	167
A few times a month	2.37%	46
At least once a week	1.64%	28
Almost everyday	1.93%	35
Total	100%	2547

<b>Item 9: You are threatened or harassed</b>		
<b>Response</b>	<b>Proportions</b>	<b>Observations</b>
Never	72.15%	1895
Less than once a year	22.60%	539
A few times a year	3.25%	76
A few times a month	0.76%	17
At least once a week	0.64%	10
Almost everyday	0.59%	11
<b>Total</b>	<b>100%</b>	<b>2540</b>

**Table 19. Reasons for Experience of Discrimination for the Total Sample (Weighted)**

<b>Main Reason for Discrimination Experiences</b>	<b>Proportion</b>
Ancestry or national origin or ethnicity	25.67%
Gender or Sex	4.19%
Race	24.58%
Age	7.66%
Height or Weight	3.46%
Skin color	3.47%
Other	30.96%
<b>Total</b>	<b>100%</b>

**Note.** In the survey, responses for Income/educational level and sexual orientation were collapsed with the “Other” category, and responses for height and weight were collapsed into one category.

**Table 20. Reasons for Experience of Everyday Discrimination for Gender by Ethnicity (Weighted)**

Reason	Latina/o Subgroup								Total
	Cuban Men	Cuban Women	Puerto Rican Men	Puerto Rican Women	Mexican Men	Mexican Women	Other Latino Men	Other Latino Women	
<b>Ancestry/national origin/or ethnicity</b>	2.76%	1.59%	6.81%	6.28%	32.96%	22.99%	12.57%	14.04%	100%
	40.09%	29.49%	32.11%	27.59%	27.82%	22.93%	21.59%	24.92%	25.67%
<b>Gender or Sex</b>	0.46%	3.36%	0.00%	13.81%	6.37%	37.75%	2.69%	35.56%	100%
	1.09%	10.17%	0.00%	9.90%	0.88%	6.15%	0.75%	10.30%	4.19%
<b>Race</b>	0.72%	0.65%	4.93%	5.35%	34.39%	25.34%	18.22%	10.41%	100%
	10.00%	11.49%	22.26%	22.51%	27.80%	24.21%	29.96%	17.68%	24.58%
<b>Age</b>	2.27%	1.19%	6.07%	5.24%	20.54%	32.50%	17.57%	14.62%	100%
	9.84%	6.58%	8.54%	6.87%	5.18%	9.68%	9.00%	7.74%	7.66%
<b>Height or Weight</b>	2.05%	0.31%	3.00%	8.09%	33.73%	30.86%	9.70%	12.26%	100%
	4.02%	0.78%	1.91%	4.79%	3.84%	4.15%	2.24%	2.93%	3.46%
<b>Skin Color</b>	0.30%	0.46%	7.57%	4.64%	25.86%	24.00%	21.59%	15.58%	100%
	0.59%	1.17%	4.83%	2.76%	2.95%	3.24%	5.02%	3.74%	3.47%
<b>Other</b>	1.96%	1.80%	5.34%	4.83%	30.97%	24.64%	15.17%	15.28%	100%
	34.38%	40.32%	30.35%	25.59%	31.53%	29.65%	31.43%	32.69%	30.96%
<b>Total</b>	1.76%	1.39%	5.44%	5.85%	30.41%	25.73%	14.95%	14.47%	100%
n	137	129	161	213	275	317	162	242	1636

**Note.** Rao Scott Pearson Chi-square test of difference for contingency table; Design-based  $F(13.65, 723.41) = 2.32; p < 0.01$ .

In the survey, responses for Income/educational level and sexual orientation were collapsed with the “Other” category, and responses for height and weight were collapsed into one category.

**Table 21. Fit Statistics of Path Model for the Total Sample**

Model			Misfit	RMSEA 90% C.I.		Fit		P Close
	$\chi^2$	df	RMSEA	Lower	Upper	TLI	CFI	
Total Sample	59.37	20	0.028	0.02	0.04	0.89	0.95	1.00

**Note.** Results are based on weighted sample. C.I.= Confidence Interval. Model adjusted for age, sex, ethnicity, income, nativity, and work status.

**Table 22. Weighted Proportions of Variance Explained in the Endogenous Variables for the Total Sample**

<b>Variable</b>	<b>Total Sample</b>
Everyday Discrimination	0.119
Subjective Social Status in the U.S.	0.05
Psychological Distress	0.123
Self-Rated Physical Health	0.143

**Table 23. Indirect Effects of Everyday Discrimination to Self-Rated Physical Health for the Total Sample (Weighted)**

Indirect Paths	Unstandardized			Standardized		
	Estimate	SE	<i>p</i>	Estimate	SE	<i>p</i>
Sum of Indirect Effects	-0.010	0.00	< .001	-0.070	0.01	< .001
<i>Specific Indirect Path</i>						
Discrimination→Status→Psych Distress→Self-Rated Physical Health	0.000	0.00	0.053	-0.002	0.00	0.06
Discrimination→Status→Self-Rated Physical Health	-0.001	0.00	< .05	-0.010	0.00	< .05
Discrimination→Psych Distress→Self-Rated Physical Health	-0.010	0.00	< .001	-0.060	0.01	< .001

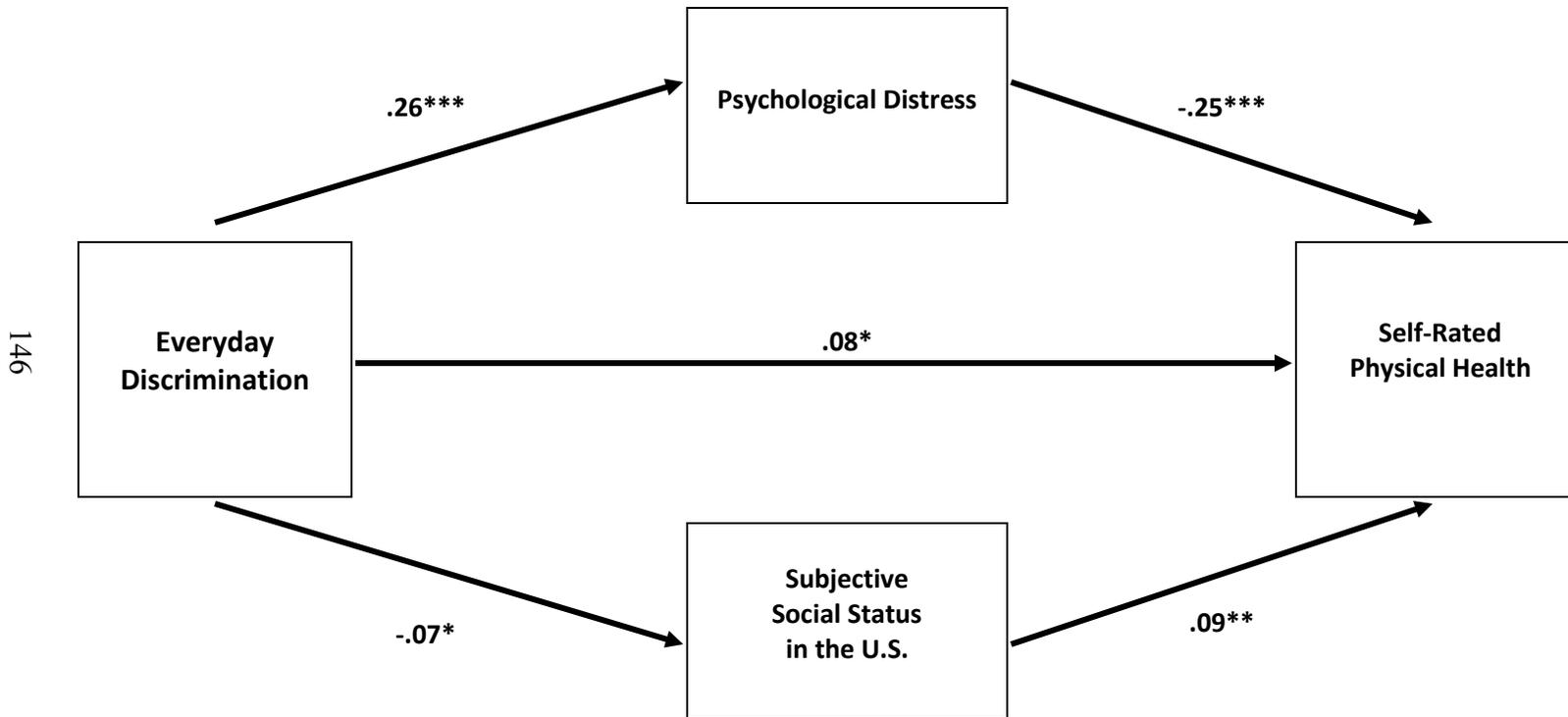
**Note.** Path model adjusted for sex, age, ethnicity, work status, income, and nativity. Psych Distress= Psychological Distress; Status= Subjective Social Status in the U.S.

**Table 24. Weighted Path Coefficients among Main Study Variables in Path Model for the Total Sample**

<b>Specific Path</b>	<b>Unstandardized Estimate</b>	<b>SE</b>	<b><i>p</i></b>	<b>Standardized Estimate</b>	<b>SE</b>	<b><i>p</i></b>
Discrimination→ Subjective Social Status in the U.S.	-0.02	0.01	< .05	-0.07	0.03	< .05
Discrimination→Psychological Distress	0.22	0.02	< .001	0.26	0.03	< .001
Discrimination→Self-Rated Physical Health	0.01	0.00	< .05	0.08	0.03	< .05
Subjective Social Status in the U.S. →Psychological Distress	-0.34	0.08	< .001	-0.10	0.02	< .001
Subjective Social Status in the U.S. →Self-Rated Physical Health	0.05	0.02	< .01	0.09	0.03	< .01
Psychological Distress→Self-Rated Physical Health	0.04	0.00	< .001	-0.25	0.02	< .001

**Note.** Path model adjusted for sex, age, ethnicity, work status, income, and nativity.

Figure 8. Diagram of the Significant Indirect Paths from Everyday Discrimination to Self-Rated Physical Health for the Total Sample



**Note.** Path coefficients represented are standardized weighted estimates. Paths not shown are those from exogenous variables to endogenous variables (refer to notes on Figure 12). \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$

Indirect Effect of Everyday Discrimination → Psychological Distress → Self-Rated Physical Health is significant at  $p < .001$ .

Indirect Effect of Everyday Discrimination → Subjective Social Status → Self-Rated Physical Health is significant at  $p < .05$ .

**Table 25. Fit Statistics for Multiple-Group Path Models by Gender and Ethnic Subgroups**

Model			Misfit	RMSEA 90% C.I.		Fit	
	$\chi^2$	<i>df</i>	RMSEA	Lower	Upper	TLI	CFI
Gender X Ethnicity Constrained	348.95*	194	0.050	0.04	0.06	0.83	0.84
Gender X Ethnicity Unconstrained	175.93	96	0.051	0.04	0.06	0.82	0.92

**Note.** Results are based on weighted sample. C.I.= Confidence Interval. Chi-squared test of difference between constrained and unconstrained nested models were calculated based on the Loglikelihood values and scaling correction factors. Gender by subethnic model adjusted for age, nativity, income, and work status.

\* Significantly differs from the unconstrained gender X subethnicity path model (nested model).

**Table 26. Weighted Proportions of the Variance Explained by the Endogenous Variables in the Path Models for Gender by Ethnic Subgroups: Latino Males**

	<b>Cuban Men</b>		<b>Puerto Rican Men</b>		<b>Mexican Men</b>		<b>Other Latino Men</b>	
	Constrained	Unconstrained	Constrained	Unconstrained	Constrained	Unconstrained	Constrained	Unconstrained
Everyday Discrimination	0.103	0.107	0.072	0.093	0.059	0.089	0.061	0.102
Subjective Social Status in the U.S.	0.073	0.127	0.068	0.057	0.061	0.056	0.059	0.045
Psychological Distress	0.127	0.121	0.091	0.124	0.129	0.114	0.146	0.119
Self-Rated Physical Health	0.132	0.262	0.162	0.236	0.112	0.097	0.126	0.075

**Table 27. Weighted Proportions of the Variance Explained by the Endogenous Variables in the Path Models for Gender by Ethnic Subgroups: Latino Females**

	<b>Cuban Women</b>		<b>Puerto Rican Women</b>		<b>Mexican Women</b>		<b>Other Latino Women</b>	
	Constrained	Unconstrained	Constrained	Unconstrained	Constrained	Unconstrained	Constrained	Unconstrained
Everyday Discrimination	0.173	0.096	0.112	0.095	0.077	0.086	0.113	0.184
Subjective Social Status in the U.S.	0.063	0.101	0.068	0.074	0.041	0.040	0.061	0.100
Psychological Distress	0.06	0.186	0.065	0.084	0.094	0.147	0.067	0.045
Self-Rated Physical Health	0.185	0.33	0.156	0.191	0.141	0.129	0.181	0.153

**Table 28. Weighted Unstandardized Path Coefficients among Main Study Variables in Model for Gender by Ethnic Subgroups: Latino Males, Unconstrained**

Specific Path	Unstandardized Estimate	SE	<i>p</i>	Specific Path	Unstandardized Estimate	SE	<i>p</i>
<b>Cuban Men</b>				<b>Puerto Rican Men</b>			
DISC→STATUS	0.02	0.02	0.24	DISC→STATUS	-0.04	0.02	< .01
DISC→PSYCHDIS	0.05	0.06	0.33	DISC→PSYCHDIS	0.09	0.06	0.12
DISC→SRPH	-0.04	0.01	< .001	DISC→SRPH	0.00	0.01	0.83
STATUS→PSYCHDIS	-0.48	0.17	< .01	STATUS→PSYCHDIS	-0.79	0.30	< .01
STATUS→SRPH	0.08	0.04	< .001	STATUS→SRPH	0.13	0.04	< .001
PSYCHDIS→SRPH	-0.07	0.01	< .001	PSYCHDIS→SRPH	-0.04	0.01	< .01
Specific Path	Unstandardized Estimate	SE	<i>p</i>	Specific Path	Unstandardized Estimate	SE	<i>p</i>
<b>Mexican Men</b>				<b>Other Latino Men</b>			
DISC→STATUS	-0.03	0.01	< .05	DISC→STATUS	-0.02	0.02	0.46
DISC→PSYCHDIS	0.19	0.05	< .001	DISC→PSYCHDIS	0.21	0.05	< .001
DISC→SRPH	0.02	0.01	< .05	DISC→SRPH	0.02	0.01	0.06
STATUS→PSYCHDIS	-0.38	0.15	< .05	STATUS→PSYCHDIS	-0.21	0.21	0.32
STATUS→SRPH	0.05	0.03	0.09	STATUS→SRPH	0.02	0.06	0.19
PSYCHDIS→SRPH	-0.05	0.01	< .001	PSYCHDIS→SRPH	-0.04	0.01	< .05

**Note.** DISC= Everyday Discrimination; STATUS= Subjective Social Status in the U.S.; PSYCHDIS= Psychological Distress; SRPH= Self-Rated Physical Health. Path model adjusted for age, work status, income, and nativity.

**Table 29. Weighted Unstandardized Path Coefficients among Main Study Variables in Model for Gender by Ethnic Subgroups: Latino Females, Unconstrained**

Specific Path	Unstandardized Estimate	SE	<i>p</i>	Specific Path	Unstandardized Estimate	SE	<i>p</i>
<b>Cuban Women</b>				<b>Puerto Rican Women</b>			
DISC→STATUS	0.03	0.03	0.28	DISC→STATUS	-0.04	0.02	< .05
DISC→PSYCHDIS	0.38	0.13	< .01	DISC→PSYCHDIS	0.17	0.08	< .05
DISC→SRPH	-0.03	0.02	< .05	DISC→SRPH	0.00	0.01	0.80
STATUS→PSYCHDIS	-1.17	0.26	< .001	STATUS→PSYCHDIS	-0.59	0.28	< .05
STATUS→SRPH	0.12	0.03	< .001	STATUS→SRPH	0.02	0.04	0.65
PSYCHDIS→SRPH	-0.03	0.01	< .05	PSYCHDIS→SRPH	-0.04	0.01	< .001
Specific Path	Unstandardized Estimate	SE	<i>p</i>	Specific Path	Unstandardized Estimate	SE	<i>p</i>
<b>Mexican Women</b>				<b>Other Latino Women</b>			
DISC→STATUS	-0.01	0.01	0.43	DISC→STATUS	0.02	0.02	0.35
DISC→PSYCHDIS	0.32	0.05	< .001	DISC→PSYCHDIS	0.22	0.08	< .01
DISC→SRPH	-0.001	0.01	0.85	DISC→SRPH	0.01	0.01	0.38
STATUS→PSYCHDIS	-0.29	0.13	< .05	STATUS→PSYCHDIS	-0.26	0.25	0.30
STATUS→SRPH	0.07	0.03	< .05	STATUS→SRPH	0.03	0.03	0.39
PSYCHDIS→SRPH	-0.03	0.01	< .001	PSYCHDIS→SRPH	-0.04	0.01	< .001

**Note.** DISC= Everyday Discrimination; STATUS= Subjective Social Status in the U.S.; PSYCHDIS= Psychological Distress; SRPH= Self-Rated Physical Health. Path model adjusted for age, work status, income, and nativity.

**Table 30. Weighted Unstandardized Indirect Effects of Everyday Discrimination to Self-Rated Physical Health for Gender by Ethnic Subgroup: Latino Males, Unconstrained**

Specific Indirect Path	Unstandardized Estimate	SE	<i>p</i>	Specific Indirect Path	Unstandardized Estimate	SE	<i>p</i>
<b>Cuban Men</b>				<b>Puerto Rican Men</b>			
Sum of Indirect Effects	-0.002	0.00	0.71	Sum of Indirect Effects	-0.010	0.00	< .01
DISC→STATUS→PSYCHDIS→SRPH	0.001	0.00	0.29	DISC→STATUS→PSYCHDIS→SRPH	-0.010	0.00	0.11
DISC→STATUS→SRPH	0.001	0.00	0.28	DISC→STATUS→SRPH	-0.010	0.00	< .05
DISC→PSYCHDIS→SRPH	-0.004	0.00	0.35	DISC→PSYCHDIS→SRPH	-0.003	0.00	0.17
Specific Indirect Path	Unstandardized Estimate	SE	<i>p</i>	Specific Indirect Path	Unstandardized Estimate	SE	<i>p</i>
<b>Mexican Men</b>				<b>Other Latino Men</b>			
Sum of Indirect Effects	-0.010	0.00	< .001	Sum of Indirect Effects	-0.010	0.00	< .05
DISC→STATUS→PSYCHDIS→SRPH	0.000	0.00	0.14	DISC→STATUS→PSYCHDIS→SRPH	0.000	0.00	0.57
DISC→STATUS→SRPH	-0.001	0.00	0.19	DISC→STATUS→SRPH	0.000	0.00	0.68
DISC→PSYCHDIS→SRPH	-0.010	0.00	< .001	DISC→PSYCHDIS→SRPH	-0.010	0.00	< .05

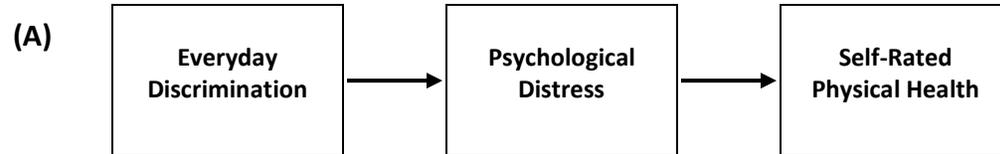
**Note.** DISC= Everyday Discrimination; STATUS= Subjective Social Status in the U.S.; PSYCHDIS= Psychological Distress; SRPH= Self-Rated Physical Health. Path model adjusted for age, work status, income, and nativity.

**Table 31. Weighted Unstandardized Indirect Effects of Everyday Discrimination to Self-Rated Physical Health for Gender by Ethnic Subgroup: Latino Females, Unconstrained**

Specific Indirect Path	Unstandardized Estimate	SE	<i>p</i>	Specific Indirect Path	Unstandardized Estimate	SE	<i>p</i>
<b>Cuban Women</b>				<b>Puerto Rican Women</b>			
Sum of Indirect Effects	-0.010	0.01	0.18	Sum of Indirect Effects	-0.010	0.00	< .05
DISC→STATUS→PSYCHDIS→SRPH	0.001	0.00	0.28	DISC→STATUS→PSYCHDIS→SRPH	-0.001	0.00	0.14
DISC→STATUS→SRPH	0.003	0.00	0.30	DISC→STATUS→SRPH	-0.001	0.00	0.66
DISC→PSYCHDIS→SRPH	-0.020	0.01	< .05	DISC→PSYCHDIS→SRPH	-0.010	0.00	< .05
Specific Indirect Path	Unstandardized Estimate	SE	<i>p</i>	Specific Indirect Path	Unstandardized Estimate	SE	<i>p</i>
<b>Mexican Women</b>				<b>Other Latino Women</b>			
Sum of Indirect Effects	-0.010	0.00	< .001	Sum of Indirect Effects	-0.010	0.00	< .05
DISC→STATUS→PSYCHDIS→SRPH	0.000	0.00	0.47	DISC→STATUS→PSYCHDIS→SRPH	0.000	0.00	0.49
DISC→STATUS→SRPH	-0.001	0.00	0.45	DISC→STATUS→SRPH	0.000	0.00	0.55
DISC→PSYCHDIS→SRPH	-0.010	0.00	< .01	DISC→PSYCHDIS→SRPH	-0.010	0.00	< .05

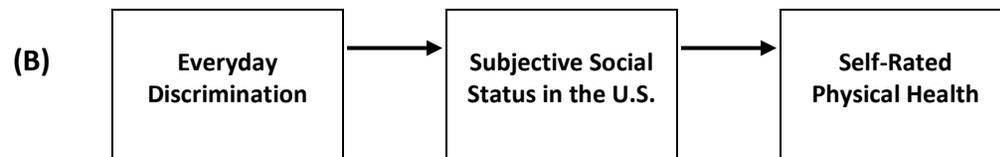
**Note.** DISC= Everyday Discrimination; STATUS= Subjective Social Status in the U.S.; PSYCHDIS= Psychological Distress; SRPH= Self-Rated Physical Health. Path model adjusted for age, work status, income, and nativity.

**Figure 9. Summary Diagrams of Significant Indirect Effects for Latina/o Subgroups**



**Note.** This indirect effect was significant for Cuban women, Puerto Rican women, Mexican men, Mexican women, Other Latino men, and Other Latino women. See Tables 28 and 29 for direct effects and Tables 30 and 31 for estimates of indirect effect

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**Note.** This indirect effect was significant only for Puerto Rican men. See Table 28 for direct effects and Table 30 for estimates of indirect effects.

**Table 32. Covariates of Main Study Variables in Path Models for Latino Male Subgroups: Cuban Men and Puerto Rican Men**

	Unstandardized Estimate	SE	<i>p</i>		Unstandardized Estimate	SE	<i>p</i>
<b>Cuban Men</b>				<b>Puerto Rican Men</b>			
<i>Discrimination</i>				<i>Discrimination</i>			
Age	-0.48	0.29	0.09	Age	-1.85	0.60	< .01
Nativity (Foreign-Born)	-4.43	1.75	< .05	Nativity (Foreign-Born)	0.55	1.72	0.75
<i>Social Status in the U.S.</i>				<i>Social Status in the U.S.</i>			
Income (\$35,000-\$74,999)	0.77	0.32	< .05	Income (\$35,000-\$74,999)	0.35	0.33	0.29
Income (\$75,000 and over)	1.58	0.32	< .001	Income (\$75,000 and over)	0.60	0.34	0.08
<i>Psychological Distress</i>				<i>Psychological Distress</i>			
Work Status (Employed)	-3.38	1.02	< .01	Work Status (Employed)	-4.01	1.24	< .01
<i>Self-Rated Physical Health</i>				<i>Self-Rated Physical Health</i>			
Age	-0.18	0.04	< .001	Age	-0.15	0.05	< .01
Income (\$35,000-\$74,999)	0.20	0.16	0.22	Income (\$35,000-\$74,999)	0.27	0.18	0.12
Income (\$75,000 and over)	0.00	0.18	1.00	Income (\$75,000 and over)	0.61	0.19	< .01
<i>Intercepts</i>				<i>Intercepts</i>			
Discrimination	23.68	3.66	< .001	Discrimination	22.81	2.00	< .001
Social Status in the U.S.	4.70	0.32	< .001	Social Status in the U.S.	6.31	0.43	< .001
Psychological Distress	15.00	1.49	< .001	Psychological Distress	18.15	2.54	< .001
Self-Rated Physical Health	5.06	0.32	< .001	Self-Rated Physical Health	3.20	0.39	< .001

**Note.** Estimates are weighted and are from the unconstrained model.

**Table 33. Covariates of Main Study Variables in Path Models for Latino Male Subgroups: Mexican Men and Other Latino Men**

	Unstandardized				Unstandardized		
	Estimate	SE	<i>p</i>		Estimate	SE	<i>p</i>
<b>Mexican Men</b>				<b>Other Latino Men</b>			
<i>Discrimination</i>				<i>Discrimination</i>			
Age	-1.47	0.28	< .001	Age	-1.36	0.77	0.08
Nativity (Foreign-Born)	-2.80	0.83	< .01	Nativity (Foreign-Born)	-3.64	1.21	< .01
<i>Social Status in the U.S.</i>				<i>Social Status in the U.S.</i>			
Income (\$35,000-\$74,999)	0.39	0.24	0.11	Income (\$35,000-\$74,999)	0.79	0.32	< .05
Income (\$75,000 and over)	1.14	0.23	< .001	Income (\$75,000 and over)	0.77	0.36	< .05
<i>Psychological Distress</i>				<i>Psychological Distress</i>			
Work Status (Employed)	-2.00	0.75	< .01	Work Status (Employed)	-1.36	1.01	0.18
<i>Self-Rated Physical Health</i>				<i>Self-Rated Physical Health</i>			
Age	-0.05	0.05	0.26	Age	-0.08	0.06	0.19
Income (\$35,000-\$74,999)	0.16	0.13	0.22	Income (\$35,000-\$74,999)	-0.04	0.17	0.80
Income (\$75,000 and over)	0.27	0.15	0.08	Income (\$75,000 and over)	0.21	0.18	0.24
<i>Intercepts</i>				<i>Intercepts</i>			
Discrimination	60.07	5.74	< .001	Discrimination	27.49	2.97	< .001
Social Status in the U.S.	3.40	0.27	< .001	Social Status in the U.S.	5.60	0.45	< .001
Psychological Distress	28.57	3.69	< .001	Psychological Distress	9.27	1.75	< .001
Self-Rated Physical Health	1.09	0.06	< .001	Self-Rated Physical Health	3.71	0.39	< .001

**Note.** Estimates are weighted and are from the unconstrained model.

**Table 34. Covariates of Main Study Variables in Path Models for Latino Female Subgroups: Cuban Women and Puerto Rican Women**

	Unstandardized Estimate	SE	<i>p</i>		Unstandardized Estimate	SE	<i>p</i>
<b>Cuban Women</b>				<b>Puerto Rican Women</b>			
<i>Discrimination</i>				<i>Discrimination</i>			
Age	-0.60	0.21	< .01	Age	-1.15	0.26	< .001
Nativity (Foreign-Born)	-2.39	1.21	< .05	Nativity (Foreign-Born)	-1.69	0.88	0.56
<i>Social Status in the U.S.</i>				<i>Social Status in the U.S.</i>			
Income (\$35,000-\$74,999)	0.90	0.31	< .01	Income (\$35,000-\$74,999)	0.70	0.27	< .01
Income (\$75,000 and over)	1.44	0.31	< .001	Income (\$75,000 and over)	0.96	0.28	< .01
<i>Psychological Distress</i>				<i>Psychological Distress</i>			
Work Status (Employed)	-3.17	1.01	< .01	Work Status (Employed)	-3.09	1.01	< .01
<i>Self-Rated Physical Health</i>				<i>Self-Rated Physical Health</i>			
Age	-0.20	0.04	< .001	Age	-0.21	0.05	< .001
Income (\$35,000-\$74,999)	0.06	0.17	0.71	Income (\$35,000-\$74,999)	0.37	0.18	< .05
Income (\$75,000 and over)	0.26	0.18	0.13	Income (\$75,000 and over)	0.50	0.19	< .01
<i>Intercepts</i>				<i>Intercepts</i>			
Discrimination	19.19	2.31	< .001	Discrimination	23.19	1.41	< .001
Social Status in the U.S.	4.74	0.39	< .001	Social Status in the U.S.	5.79	0.35	< .001
Psychological Distress	16.25	2.26	< .001	Psychological Distress	16.05	2.08	< .001
Self-Rated Physical Health	4.34	0.35	< .001	Self-Rated Physical Health	4.08	0.36	< .001

**Note.** Estimates are weighted and are from the unconstrained model.

**Table 35. Covariates of Main Study Variables in Path Models for Latino Female Subgroups: Mexican Women and Other Latino Women**

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	Unstandardized Estimate	SE	p		Unstandardized Estimate	SE	p
<b>Mexican Women</b>				<b>Other Latino Women</b>			
<i>Discrimination</i>				<i>Discrimination</i>			
Age	-1.06	0.21	< .001	Age	-1.13	0.23	< .001
Nativity (Foreign-Born)	-3.05	0.69	< .001	Nativity (Foreign-Born)	-4.35	0.87	< .001
<i>Social Status in the U.S.</i>				<i>Social Status in the U.S.</i>			
Income (\$35,000-\$74,999)	0.84	0.26	< .01	Income (\$35,000-\$74,999)	0.98	0.27	< .001
Income (\$75,000 and over)	0.96	0.31	< .01	Income (\$75,000 and over)	1.48	0.23	< .001
<i>Psychological Distress</i>				<i>Psychological Distress</i>			
Work Status (Employed)	-2.32	0.60	< .001	Work Status (Employed)	-0.75	0.91	0.41
<i>Self-Rated Physical Health</i>				<i>Self-Rated Physical Health</i>			
Age	-0.18	0.04	0.26	Age	-0.18	0.04	< .001
Income (\$35,000-\$74,999)	0.02	0.12	0.87	Income (\$35,000-\$74,999)	-0.12	0.13	0.38
Income (\$75,000 and over)	0.36	0.17	< .05	Income (\$75,000 and over)	0.13	0.15	0.40
<i>Intercepts</i>				<i>Intercepts</i>			
Discrimination	23.14	1.42	< .001	Discrimination	25.61	1.65	< .001
Social Status in the U.S.	5.40	0.29	< .001	Social Status in the U.S.	4.83	0.29	< .001
Psychological Distress	10.06	1.25	< .001	Psychological Distress	11.67	1.55	< .001
Self-Rated Physical Health	3.48	0.24	< .001	Self-Rated Physical Health	3.90	0.23	< .001

**Note.** Estimates are weighted and are from the unconstrained model.

**Table 36. Summary of Findings for Relations in Path Model by Total Sample and for Gender by Ethnicity**

	Total Sample	Cuban Men	Cuban Women	Puerto Rican Men	Puerto Rican Women	Mexican Men	Mexican Women	Other Latino Men	Other Latino Women
<b>Direct Effects</b>									
DISC→STATUS	√	N.S.	N.S.	√	√	√	N.S.	N.S.	N.S.
DISC→PSYCHDIS	√	N.S.	√	N.S.	√	√	√	√	√
DISC→SRPH	√*	√	√	N.S.	N.S.	√*	N.S.	N.S.	N.S.
STATUS→PSYCHDIS	√	√	√	√	√	√	√	N.S.	N.S.
STATUS→SRPH	√	√	√	√	N.S.	N.S.	√	N.S.	N.S.
PSYCHDIS→SRPH	√	√	√	√	√	√	√	√	√
<b>Indirect Effects</b>									
DISC→STATUS→PSYCHDIS→SRPH	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
DISC→PSYCHDIS→SRPH	√	N.S.	√	N.S.	√	√	√	√	√
<b>Other Indirect Effects</b>									
DISC→STATUS→SRPH	√	N.S.	N.S.	√	N.S.	N.S.	N.S.	N.S.	N.S.

**Note.** DISC= Everyday Discrimination; STATUS= Subjective Social Status in the U.S.; PSYCHDIS= Psychological Distress; SRPH= Self-Rated Physical Health.  
 N.S.= non-significant; √= significant; √\* =Significant but in opposite direction to what was hypothesized.

**Table 37. Summary of Findings for Targeted Moderation Analyses**

	<b>Interactions</b>	<b>Holm-Test Adjusted Interactions</b>
<b>Research Question/Hypothesis 6A</b> Discrimination X Latino Subgroup→Subjective Social Status	√	√
<b>Research Question/Hypothesis 6B</b> Discrimination X Latino Subgroup→Psychological Distress	√	√
<b>Research Question/Hypothesis 6C</b> Discrimination X Latino Subgroup→Self-Rated Physical Health	√	N.S.
<b>Research Question/Hypothesis 6D</b> Subjective Social Status X Latino Subgroup→Psychological Distress	√	N.S.
<b>Research Question/Hypothesis 6E</b> Subjective Social Status X Latino Subgroup→Self-Rated Physical Health	√	N.S.
<b>Research Question/Hypothesis 6F</b> Psychological Distress X Latino Subgroup→Self-Rated Physical Health	√	N.S.

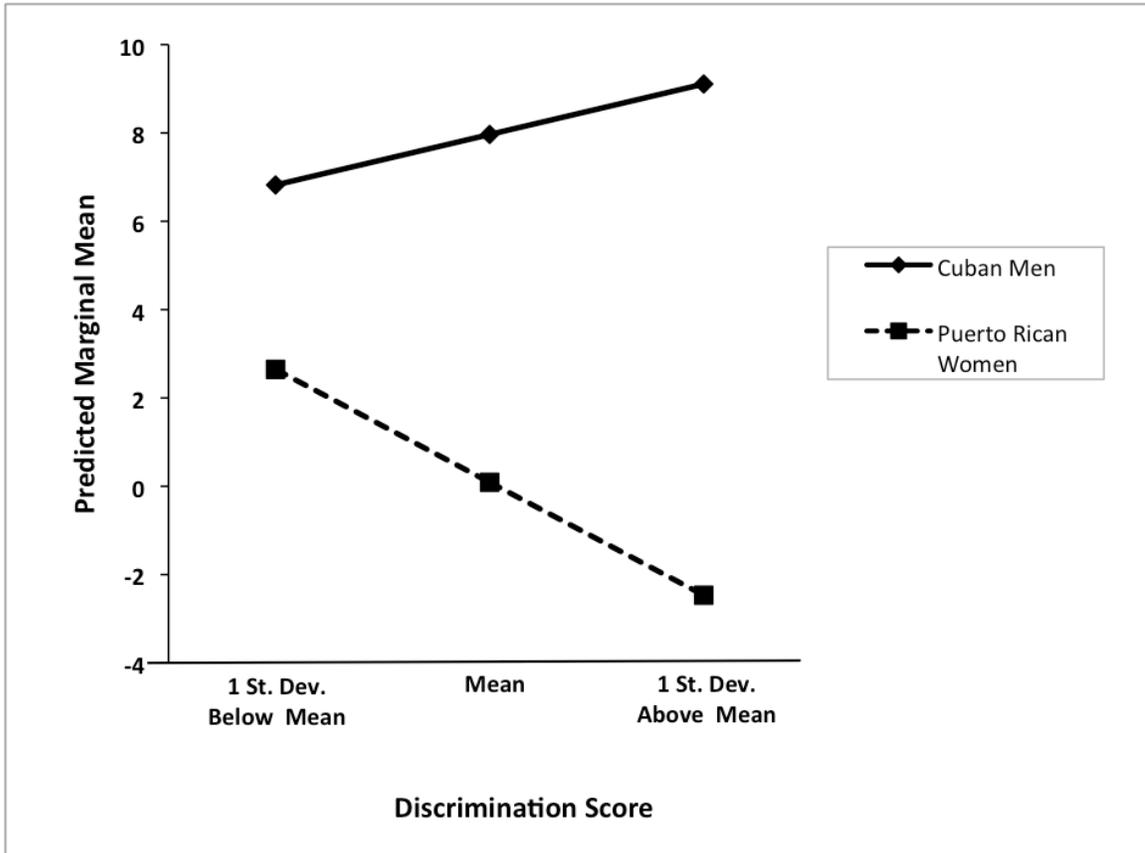
**Note.** √= Indicates significant effect. N.S.= non significant.

**Table 38. Summary of Findings for Hypothesized Moderating Effects of Discrimination by Latina/o Subgroup**

	<i>B</i> <sup>a</sup>	S.E.
<b>RQ6A: Discrimination X Latino Subgroup→Subjective Social Status</b>		
Cuban men vs. Puerto Rican men	-0.45†	0.17
Cuban men vs. Puerto Rican women	<b>-0.48**</b>	0.14
Cuban men vs. Mexican men	-0.34†	0.13
Cuban men vs. Mexican women	-0.23	0.17
Cuban women vs. Puerto Rican men	-0.50†	0.23
Cuban women vs. Puerto Rican women	-0.53†	0.21
Cuban women vs. Mexican men	-0.39	0.20
Cuban women vs. Mexican women	-0.28	0.24
<b>RQ6B: Discrimination X Latino Subgroup→Psychological Distress</b>		
Cuban women vs. Puerto Rican men	-1.68	1.02
Cuban women vs. Mexican men	-1.13	0.89
Cuban women vs. Other Latino men	-1.08	1.23
Puerto Rican women vs. Cuban men	-1.10	0.74
Puerto Rican women vs. Mexican men	0.04	0.64
Puerto Rican women vs. Other Latino men	0.09	0.62
Mexican women vs. Cuban men	<b>-2.07***</b>	0.45
Mexican women vs. Puerto Rican men	-1.49†	0.50
Mexican women vs. Other Latino men	-0.88	0.55
Other Latino women vs. Cuban men	-1.32†	0.62
Other Latino women vs. Puerto Rican men	-0.73	0.67
Other Latino women vs. Mexican men	-0.18	0.53
<b>RQ6C: Discrimination X Latino Subgroup→Self-Rated Physical Health</b>		
Cuban men vs. Cuban women	-0.05	0.15
Cuban men vs. Puerto Rican women	0.24	0.12
Cuban men vs. Mexican women	0.20	0.11
Cuban men vs. Other Latino women	0.28†	0.11
Puerto Rican men vs. Cuban women	-0.27†	0.12
Puerto Rican men vs. Puerto Rican women	0.02	0.07
Puerto Rican men vs. Mexican women	-0.02	0.08
Puerto Rican men vs. Other Latino women	0.07	0.08
Mexican men vs. Cuban women	-0.34†	0.12
Mexican men vs. Puerto Rican women	-0.05	0.08
Mexican men vs. Mexican women	-0.09	0.08
Mexican men vs. Other Latino women	0.00	0.07
Other Latino men vs. Cuban women	-0.40†	0.14
Other Latino men vs. Puerto Rican women	-0.11	0.11
Other Latino men vs. Mexican women	-0.15	0.10
Other Latino men vs. Other Latino women	-0.06	0.10

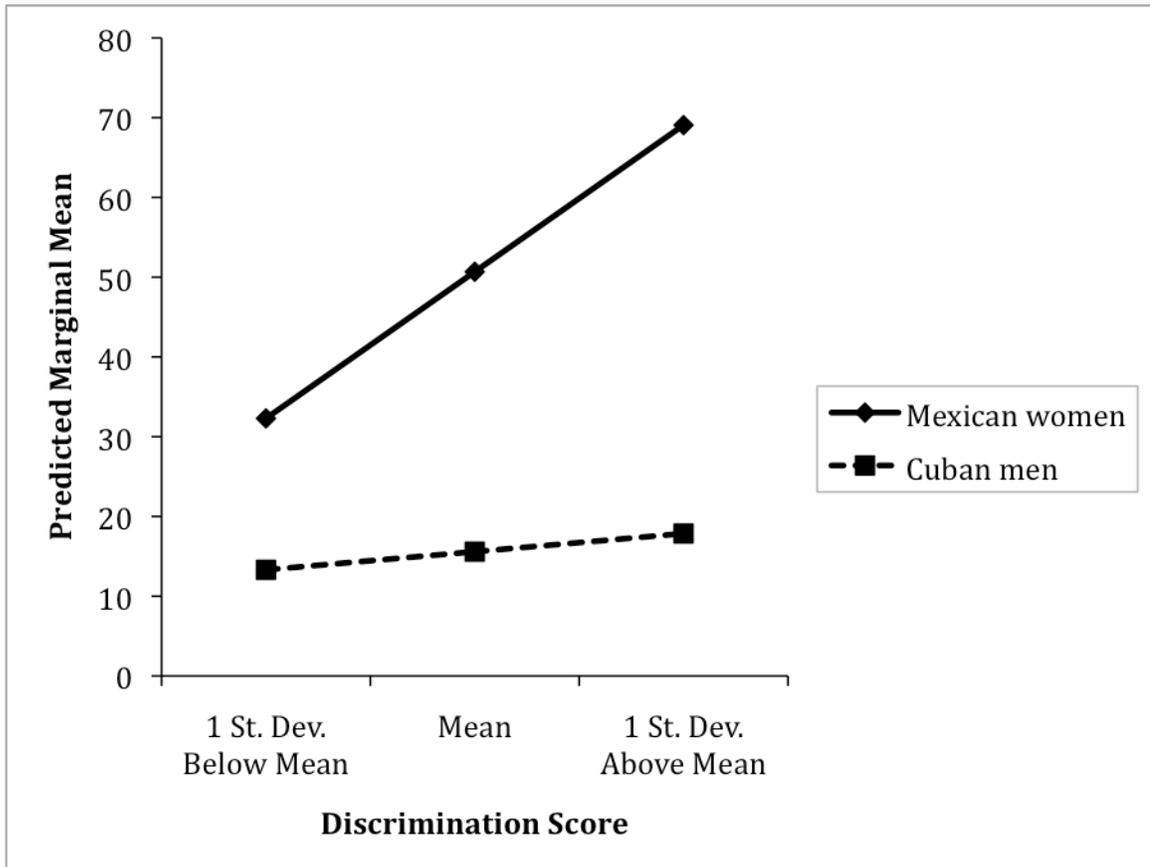
**Note.** RQ= Research Question; <sup>a</sup>Estimate of the interaction term. Beta coefficients are unstandardized. **Bold** values are those that are considered significant after Holm Test adjustment. \*\* $p < .01$ ; \*\*\* $p < .001$ . †These interactions were significant at least at the  $p < .05$  level before the Holm Test adjustment.

**Figure 10. Predicted Marginal Means of Subjective Social Status in the U.S. as a Function of Discrimination and Latina/o Subgroup Membership**



**Note.** Coefficients from the regression model were used to calculate and plot the predicted marginal means of subjective social status in the U.S. Slope for Cuban men differs significantly from Puerto Rican women at  $p < .01$ .

**Figure 11. Predicted Marginal Means of Psychological Distress as a Function of Discrimination and Latina/o Subgroup Membership**



**Note.** Coefficients from the regression model were used to calculate and plot the predicted marginal means of psychological distress.  
Slope for Mexican women differs significantly from Cuban men at  $p < .001$ .

**Table 39. Summary of Findings for Hypothesized Moderating Effects of Subjective Social Status in the U.S. by Latina/o Subgroup**

	<i>B</i> <sup>a</sup>	S.E.
<b>RQ6D: Social Status X Latino Subgroup→Psychological Distress</b>		
Cuban men vs. Puerto Rican men	-0.71	0.48
Cuban men vs. Puerto Rican women	-0.35	0.85
Cuban men vs. Mexican men	0.15	0.45
Cuban men vs. Mexican women	0.41	0.32
Cuban women vs. Puerto Rican men	0.37	0.73
Cuban women vs. Puerto Rican women	0.74	1.04
Cuban women vs. Mexican men	1.24	0.68
Cuban women vs. Mexican women	1.49 <sup>†</sup>	0.63
Cuban women vs. Cuban men	1.08	0.68
<b>RQ6E: Social Status X Latino Subgroup→Self-Rated Physical Health</b>		
Cuban men vs. Puerto Rican men	0.17	0.09
Cuban men vs. Puerto Rican women	-0.07	0.10
Cuban men vs. Mexican men	-0.04	0.09
Cuban men vs. Mexican women	-0.01	0.08
Cuban women vs. Puerto Rican men	0.00	0.09
Cuban women vs. Puerto Rican women	-0.24 <sup>†</sup>	0.11
Cuban women vs. Mexican men	-0.21 <sup>†</sup>	0.08
Cuban women vs. Mexican women	-0.18 <sup>†</sup>	0.07
Cuban men vs. Cuban women	0.17 <sup>†</sup>	0.08

**Note.** RQ= Research Question; <sup>a</sup>Estimate of the interaction term. Beta coefficients are unstandardized.

**Bold** values are those that are considered significant after Holm Test adjustment. \*\* $p < .01$ .

<sup>†</sup>These interactions were significant at least at the  $p < .05$  level before the Holm Test adjustment.

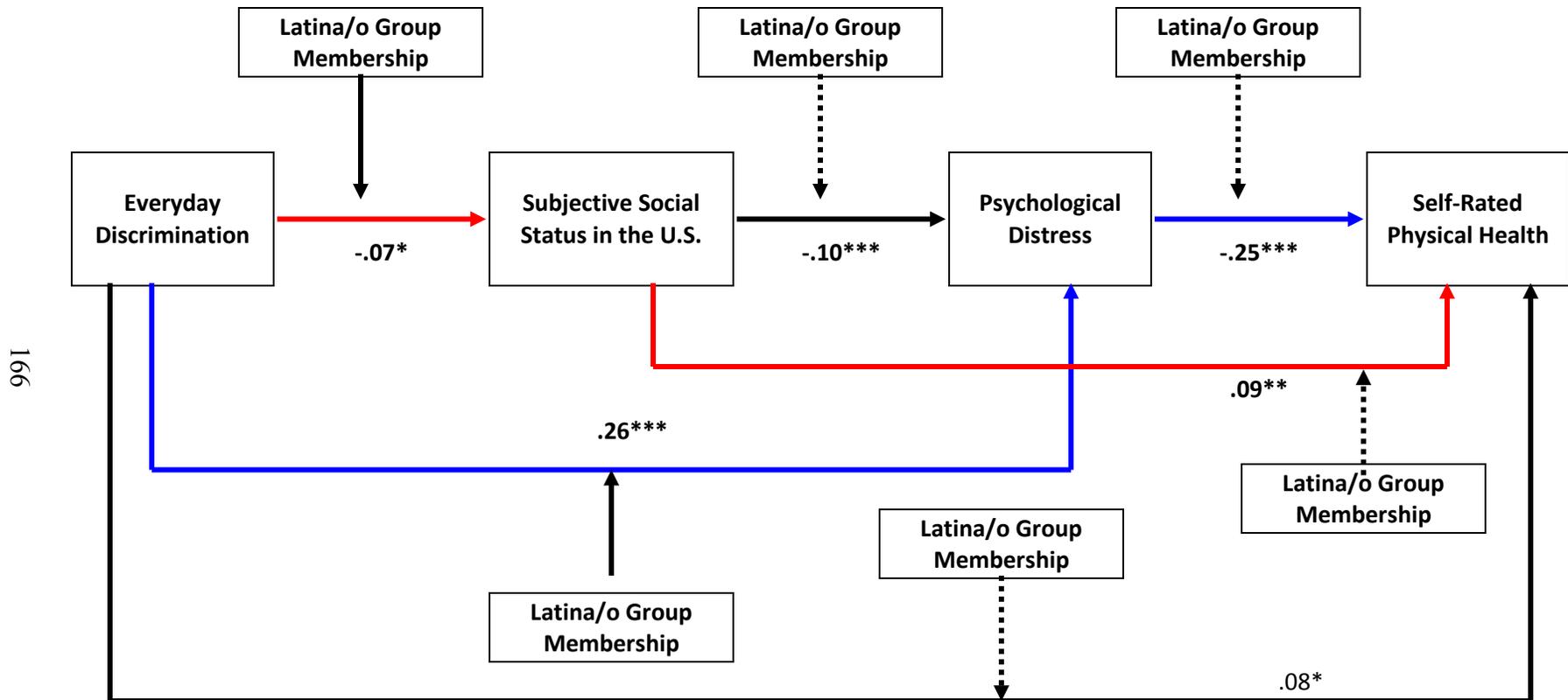
**Table 40. Summary of Findings for Hypothesized Moderating Effects of Psychological Distress by Latina/o Subgroup**

	<i>B</i> <sup>a</sup>	S.E.
<b>RQ6F: Psychological Distress X Latino Subgroup → Self-Rated Physical Health</b>		
Puerto Rican men vs. Cuban men	-0.23 <sup>†</sup>	0.10
Puerto Rican men vs. Cuban women	-0.14	0.13
Puerto Rican men vs. Mexican men	-0.02	0.10
Puerto Rican men vs. Mexican women	0.09	0.09
Puerto Rican men vs. Other Latino men	0.12	0.11
Puerto Rican men vs. Other Latino women	0.08	0.09
Puerto Rican women vs. Cuban men	-0.26 <sup>†</sup>	0.13
Puerto Rican women vs. Cuban women	-0.17	0.14
Puerto Rican women vs. Mexican men	-0.05	0.13
Puerto Rican women vs. Mexican women	0.06	0.12
Puerto Rican women vs. Other Latino men	0.09	0.15
Puerto Rican women vs. Other Latino women	0.05	0.12
Puerto Rican women vs. Puerto Rican men	-0.14	0.13

**Note.** RQ= Research Question; <sup>a</sup>Estimate of the interaction term. Beta coefficients are unstandardized.

<sup>†</sup>These interactions were significant at least at the  $p < .05$  level before the Holm Test adjustment.

Figure 12. Schematic Representation of the Final Moderated-Mediated Model for the Total Sample



**Note.** Path coefficients represented are standardized weighted estimates from the total sample results. **Bold** values represent path coefficients in hypothesized direction. Dashed arrows represent non-significant moderating effects of Latina/o group membership. **Red** and **blue** arrows indicate significant indirect paths. Paths not shown are those from exogenous variables to endogenous variables for total sample path model: sex to discrimination ( $\beta = -.10, p < .001$ ) and to psychological distress ( $\beta = .15, p < .001$ ); ethnicity to discrimination [Puerto Rican ( $\beta = .12, p < .001$ ); Mexican ( $\beta = .10, p < .001$ ); Other Latino ( $\beta = .13, p < .001$ )] and to self-rated physical health [Puerto Rican ( $\beta = -.08, p < .001$ ); Mexican ( $\beta = -.23, p < .001$ ); Other Latino ( $\beta = -.10, p < .01$ )]; nativity to discrimination ( $\beta = -.19, p < .001$ ); age to discrimination ( $\beta = -.23, p < .001$ ) and to self-rated physical health ( $\beta = -.18, p < .001$ ); income to perceived social status in U.S. [ $\$35,000- \$74,999$  ( $\beta = .15, p < .001$ ),  $\$75,000$  and over ( $\beta = .20, p < .001$ )] and to self-rated physical health [ $\$35,000- \$74,999$  ( $\beta = .04, p = .15$ ),  $\$75,000$  and over ( $\beta = .10, p < .001$ )]; and work status to psychological distress [employed ( $\beta = -.15, p < .001$ )]. Refer to Methods section for reference groups for each of the covariates.  $***p < .001$ ;  $**p < .01$ ;  $*p < .05$ .

**Table 41. Fit Statistics for Alternate Multiple-Group Path Models**

Model			Misfit	RMSEA 90% C.I.		Fit	
	$\chi^2$	df	RMSEA	Lower	Upper	TLI	CFI
Alternate #1: Cuban Women Contrast (Constrained)	114.99	38	0.040	0.03	0.05	0.86	0.90
Alternate #1: Cuban Women Contrast (Unconstrained)	74.14*	24	0.040	0.03	0.05	0.85	0.93
Alternate #2: Other Latino Women Contrast (Constrained)	79.68	38	0.030	0.02	0.04	0.91	0.94
Alternate #2: Other Latino Women Contrast (Unconstrained)	55.92	24	0.032	0.02	0.04	0.9	0.95

**Note.** Results are based on weighted sample. C.I.= Confidence Interval. Chi-squared test of difference between constrained and unconstrained nested models were calculated based on the Loglikelihood values and scaling correction factors. All nested models adjusted for age, nativity, income, and work status.

\* Significantly differs from the constrained Cuban Women path model (nested model).

**Table 42. Weighted Unstandardized Indirect Effects of Everyday Discrimination to Self-Rated Physical Health for Cuban Women and All Other Latina/o Subgroups**

<b>Specific Indirect Paths (Constrained)</b>	<b>Unstandardized Estimate</b>	<b>SE</b>	<b><i>p</i></b>	<b>Specific Indirect Paths (Constrained)</b>	<b>Unstandardized Estimate</b>	<b>SE</b>	<b><i>p</i></b>
<b>Cuban Women</b>				<b>All Other Subgroups</b>			
Sum of Indirect Effects	-0.010	0.00	< .001	Sum of Indirect Effects	-0.010	0.00	< .001
DISC→STATUS→PSYCHDIS→SRPH	0.000	0.00	0.07	DISC→STATUS→PSYCHDIS→SRPH	0.000	0.00	0.07
DISC→STATUS→SRPH	-0.001	0.00	0.06	DISC→STATUS→SRPH	-0.001	0.00	0.06
DISC→PSYCHDIS→SRPH	-0.009	0.00	< .001	DISC→PSYCHDIS→SRPH	-0.009	0.00	< .001
<b>Specific Indirect Paths (Unconstrained)</b>	<b>Unstandardized Estimate</b>	<b>SE</b>	<b><i>p</i></b>	<b>Specific Indirect Paths (Unconstrained)</b>	<b>Unstandardized Estimate</b>	<b>SE</b>	<b><i>p</i></b>
<b>Cuban Women</b>				<b>All Other Subgroups</b>			
Sum of Indirect Effects	-0.010	0.01	0.18	Sum of Indirect Effects	-0.010	0.00	< .001
DISC→STATUS→PSYCHDIS→SRPH	0.001	0.00	0.28	DISC→STATUS→PSYCHDIS→SRPH	0.000	0.00	0.06
DISC→STATUS→SRPH	0.003	0.00	0.30	DISC→STATUS→SRPH	-0.001	0.00	< .05
DISC→PSYCHDIS→SRPH	-0.020	0.01	< .05	DISC→PSYCHDIS→SRPH	-0.010	0.00	< .001

**Note.** DISC= Everyday Discrimination; STATUS= Subjective Social Status in the U.S.; PSYCHDIS= Psychological Distress; SRPH= Self-Rated Physical Health. Path model adjusted for age, work status, income, and nativity.

**Table 43. Weighted Unstandardized Path Coefficients among Main Study Variables in Model for Cuban Women and All Other Latina/o Subgroups**

Specific Path (Constrained)	Unstandardized Estimate	SE	<i>p</i>	Specific Path (Constrained)	Unstandardized Estimate	SE	<i>p</i>
<b>Cuban Women</b>				<b>All Other Subgroups</b>			
DISC→STATUS	-0.020	0.01	< .05	DISC→STATUS	-0.020	0.01	< .05
DISC→PSYCHDIS	0.210	0.03	< .001	DISC→PSYCHDIS	0.210	0.03	< .001
DISC→SRPH	0.010	0.00	0.06	DISC→SRPH	0.010	0.00	0.06
STATUS→PSYCHDIS	-0.380	0.08	< .001	STATUS→PSYCHDIS	-0.380	0.08	< .001
STATUS→SRPH	0.060	0.01	< .001	STATUS→SRPH	0.060	0.01	< .001
PSYCHDIS→SRPH	-0.040	0.00	< .001	PSYCHDIS→SRPH	-0.040	0.00	< .001
Specific Path (Unconstrained)	Unstandardized Estimate	SE	<i>p</i>	Specific Path (Unconstrained)	Unstandardized Estimate	SE	<i>p</i>
<b>Cuban Women</b>				<b>All Other Subgroups</b>			
DISC→STATUS	0.03	0.03	0.28	DISC→STATUS	-0.02	0.01	< .05
DISC→PSYCHDIS	0.38	0.13	< .01	DISC→PSYCHDIS	0.21	0.03	< .001
DISC→SRPH	-0.03	0.01	< .05	DISC→SRPH	0.01	0.01	< .05
STATUS→PSYCHDIS	-1.17	0.26	< .001	STATUS→PSYCHDIS	-0.30	0.08	< .001
STATUS→SRPH	0.12	0.03	< .001	STATUS→SRPH	0.05	0.01	< .01
PSYCHDIS→SRPH	-0.05	0.01	< .001	PSYCHDIS→SRPH	0.01	0.01	< .05

**Note.** DISC= Everyday Discrimination; STATUS= Subjective Social Status in the U.S.; PSYCHDIS= Psychological Distress; SRPH= Self-Rated Physical Health. Path model adjusted for age, work status, income, and nativity.

**Table 44. Covariates of Main Study Variables in Path Model for Cuban Women and All Other Latina/o Subgroups**

	Unstandardized			Unstandardized			
	Estimate	SE	<i>p</i>	Estimate	SE	<i>p</i>	
<b>Cuban Women</b>	<b>All Other Latino Groups</b>						
<i>Discrimination</i>							
Age	-0.60	0.21	< .01	Age	-1.28	0.16	< .001
Nativity (Foreign-Born)	-2.39	1.21	< .05	Nativity (Foreign-Born)	-3.10	0.40	< .001
<i>Social Status in the U.S.</i>							
Income (\$35,000-\$74,999)	0.90	0.31	< .01	Income (\$35,000-\$74,999)	0.68	0.12	< .001
Income (\$75,000 and over)	1.44	0.31	< .001	Income (\$75,000 and over)	1.07	0.12	< .001
<i>Psychological Distress</i>							
Work Status (Employed)	-3.17	1.01	< .01	Work Status (Employed)	-2.51	0.35	< .001
<i>Self-Rated Physical Health</i>							
Age	-0.20	0.04	< .001	Age	-0.13	0.02	< .001
Income (\$35,000-\$74,999)	0.06	0.17	0.71	Income (\$35,000-\$74,999)	0.11	0.06	0.08
Income (\$75,000 and over)	0.26	0.18	0.13	Income (\$75,000 and over)	0.34	0.07	< .001
<i>Intercepts</i>							
Discrimination	19.19	2.31	< .001	Discrimination	24.89	0.81	< .001
Social Status in the U.S.	4.74	0.39	< .001	Social Status in the U.S.	5.40	0.14	< .001
Psychological Distress	16.25	2.26	< .001	Psychological Distress	11.52	0.66	< .001
Self-Rated Physical Health	4.34	0.35	< .001	Self-Rated Physical Health	3.52	0.13	< .001

**Note.** Estimates are weighted and are from the unconstrained model.

**Table 45. Weighted Unstandardized Indirect Effects of Everyday Discrimination to Self-Rated Physical Health for Other Latino Women and All Other Latina/o Subgroups**

Specific Indirect Paths (Constrained)	Unstandardized Estimate	SE	<i>p</i>	Specific Indirect Paths (Constrained)	Unstandardized Estimate	SE	<i>p</i>
<b>Other Latino Women</b>				<b>All Other Subgroups</b>			
Sum of Indirect Effects	-0.010	0.00	< .001	Sum of Indirect Effects	-0.010	0.00	< .001
DISC→STATUS→PSYCHDIS→SRPH	0.000	0.00	0.06	DISC→STATUS→PSYCHDIS→SRPH	0.000	0.00	0.06
DISC→STATUS→SRPH	-0.001	0.00	< .05	DISC→STATUS→SRPH	-0.001	0.00	< .05
DISC→PSYCHDIS→SRPH	-0.010	0.00	< .001	DISC→PSYCHDIS→SRPH	-0.010	0.00	< .001
Specific Indirect Paths (Unconstrained)	Unstandardized Estimate	SE	<i>p</i>	Specific Indirect Paths (Unconstrained)	Unstandardized Estimate	SE	<i>p</i>
<b>Other Latino Women</b>				<b>All Other Subgroups</b>			
Sum of Indirect Effects	-0.010	0.00	< .05	Sum of Indirect Effects	-0.010	0.00	< .001
DISC→STATUS→PSYCHDIS→SRPH	0.000	0.00	0.49	DISC→STATUS→PSYCHDIS→SRPH	0.000	0.00	< .05
DISC→STATUS→SRPH	0.000	0.00	0.55	DISC→STATUS→SRPH	-0.001	0.00	< .05
DISC→PSYCHDIS→SRPH	-0.010	0.00	< .05	DISC→PSYCHDIS→SRPH	-0.010	0.00	< .001

**Note.** DISC= Everyday Discrimination; STATUS= Social Status in the U.S.; PSYCHDIS= Psychological Distress; SRPH= Self-Rated Physical Health. Path model adjusted for age, work status, income, and nativity.

**Table 46. Weighted Unstandardized Path Coefficients among Main Study Variables in Model for Other Latino Women and All Other Latina/o Subgroups**

Specific Path (Constrained)	Unstandardized Estimate	SE	<i>p</i>	Specific Path (Constrained)	Unstandardized Estimate	SE	<i>p</i>
<b>Other Latino Women</b>				<b>All Other Subgroups</b>			
DISC→STATUS	-0.02	0.01	< .05	DISC→STATUS	-0.02	0.01	< .05
DISC→PSYCHDIS	0.21	0.03	< .001	DISC→PSYCHDIS	0.21	0.03	< .001
DISC→SRPH	0.01	0.00	< .05	DISC→SRPH	0.01	0.00	< .05
STATUS→PSYCHDIS	-0.33	0.08	< .001	STATUS→PSYCHDIS	-0.33	0.08	< .001
STATUS→SRPH	0.05	0.02	< .01	STATUS→SRPH	0.05	0.02	< .01
PSYCHDIS→SRPH	-0.04	0.00	< .001	PSYCHDIS→SRPH	-0.04	0.00	< .001
Specific Path (Unconstrained)	Unstandardized Estimate	SE	<i>p</i>	Specific Path (Unconstrained)	Unstandardized Estimate	SE	<i>p</i>
<b>Other Latino Women</b>				<b>All Other Subgroups</b>			
DISC→STATUS	0.02	0.02	0.35	DISC→STATUS	-0.02	0.01	< .05
DISC→PSYCHDIS	0.22	0.08	< .01	DISC→PSYCHDIS	0.21	0.03	< .001
DISC→SRPH	0.01	0.01	0.38	DISC→SRPH	0.01	0.01	< .05
STATUS→PSYCHDIS	-0.26	0.25	0.30	STATUS→PSYCHDIS	-0.35	0.08	< .001
STATUS→SRPH	0.03	0.03	0.39	STATUS→SRPH	0.06	0.02	< .01
PSYCHDIS→SRPH	-0.04	0.01	< .001	PSYCHDIS→SRPH	-0.04	0.01	< .001

**Note.** DISC= Everyday Discrimination; STATUS= Social Status in the U.S.; PSYCHDIS= Psychological Distress; SRPH= Self-Rated Physical Health. Path model adjusted for age, work status, income, and nativity.

**Table 47. Covariates of Main Study Variables in Path Model for Other Latino Women and All Other Latina/o Subgroups**

	Unstandardized			Unstandardized			
	Estimate	SE	<i>p</i>	Estimate	SE	<i>p</i>	
<b>Other Latino Women</b>				<b>All Other Latino Groups</b>			
<i>Discrimination</i>				<i>Discrimination</i>			
Age	-1.13	0.23	< .001	Age	-1.27	0.17	< .001
Nativity (Foreign-Born)	-4.35	0.87	< .001	Nativity (Foreign-Born)	-2.91	0.44	< .001
<i>Social Status in the U.S.</i>				<i>Social Status in the U.S.</i>			
Income (\$35,000-\$74,999)	0.98	0.27	< .001	Income (\$35,000-\$74,999)	0.64	0.13	< .001
Income (\$75,000 and over)	1.48	0.23	< .001	Income (\$75,000 and over)	1.00	0.13	< .001
<i>Psychological Distress</i>				<i>Psychological Distress</i>			
Work Status (Employed)	-0.75	0.91	0.41	Work Status (Employed)	-2.79	0.37	< .001
<i>Self-Rated Physical Health</i>				<i>Self-Rated Physical Health</i>			
Age	-0.18	0.04	< .001	Age	-0.12	0.02	< .001
Income (\$35,000-\$74,999)	-0.12	0.13	0.38	Income (\$35,000-\$74,999)	0.15	0.07	< .05
Income (\$75,000 and over)	0.13	0.15	0.40	Income (\$75,000 and over)	0.38	0.08	< .001
<i>Intercepts</i>				<i>Intercepts</i>			
Discrimination	25.61	1.65	< .001	Discrimination	24.62	0.89	< .001
Social Status in the U.S.	4.83	0.29	< .001	Social Status in the U.S.	5.47	0.15	< .001
Psychological Distress	11.67	1.55	< .001	Psychological Distress	11.65	0.71	< .001
Self-Rated Physical Health	3.90	0.23	< .001	Self-Rated Physical Health	3.47	0.15	< .001

**Note.** Estimates are weighted and are from the unconstrained model.

## **CHAPTER VI**

### **DISCUSSION**

This study examined the heterogeneity in exposure to various aspects of social marginality and their influence on psychological distress and self-rated physical health among subgroups of Latino adults. Importantly, the present study makes the intersections of gender and ethnicity central to the social marginality process. This is the first study to examine the way in which the health effects of social marginality unfold across diverse and nationally representative samples of Latinos at different social locations.

#### **Dimensions of Social Marginality**

Results from mean differences in social marginality constructs revealed that Puerto Rican men indeed reported the highest levels of perceived discrimination and Cuban women the least, which is consistent with my hypotheses. These results are not surprising, since prior research has found that Puerto Ricans relative to other Latinos report the highest levels of everyday discrimination, and Cubans relative to other Latinos report the lowest levels of everyday discrimination (Pérez et al., 2008). Likewise, Latino men compared to Latino women have been shown to report greater levels of everyday discrimination (Pérez et al., 2008). From a social structural perspective, men of color, particularly non-Latino Black and Puerto Rican men, have been denied access to social and economic opportunities that result in constrained labor participation and access to privileges afforded to other men. In fact, Portes and Rumbaut (1996) noted that

discrimination could contribute to the confinement of certain ethnic minority groups to low-wage menial labor, and even to exclusion from the labor market—hence unemployment. This argument lends support to the finding that Puerto Rican men would report the highest levels of discrimination. For example, for Puerto Rican men, heightened levels of discrimination can be symbolic of the economic roadblocks they continue to disproportionately face. That is, Puerto Rican men have higher rates of unemployment and of being out of the labor force than their Latino male counterparts (CPS, 2010). Thus, economic marginality may parallel the social marginality experienced by these men—in essence, helping to shape their perceptions of everyday discrimination.

On the other hand, Cuban women's lower levels of perceived discrimination are not surprising either, since feminist scholars such as Hurtado (1989) have argued that gender alone does not determine whether one occupies a superordinate or subordinate position. Indeed, women are embedded within ethnic, racial, and class relations that create uniquely different social realities across and between them. In fact, the findings for Cuban women can be framed within three particular reasons to explain how they may experience closer proximity to privilege through (1) holding a majority status in South Florida (i.e., where they are the majority group—numerically, socially, and politically); (2) possession of greater access to resources (i.e., as a function of higher levels of education and income); and (3) their relational positioning to Cuban men—the highest earners of all Latina/o subgroups.

First, the sample of Cuban women in the present study was predominantly from the Southern region of the U.S. (i.e., Miami, Florida). By extension, in this context, being a part of the majority group may help protect Cuban women from the social

discrimination that other groups of Latinas encounter in this region (e.g., Central American women; Portes & Rumbaut, 2001). For example, studies comparing Cubans and Nicaraguans in Miami have found that Cubans report lower rates of perceived discrimination compared to their Nicaraguan counterparts (Gil & Vega, 1996; Portes & Rumbaut, 2001). Therefore, in so far that living in South Florida confers Cuban women benefits and valuable resources such as densely integrated communities, social ties, and social opportunities (Portes, Fernandez-Kelly, & Haller, 2005), they may not come to perceive as much discrimination as other Latinas who might not live in this type of community. Indeed, other groups of Latina/os live in less segregated communities (the exception being Mexican immigrants, who are more likely to live in densely Mexican communities, but comprised of high levels of poverty). For example, Hunt et al. (2007) found that among Black women, higher percentage of blacks in one's neighborhood was associated with lower levels of perceived discrimination. This study also noted that consistent with the contact hypothesis, living in evenly-mixed (integrated) contexts results in lower levels of discrimination, but consistent with the ethnic density hypothesis, living in mostly black contexts results in the lowest levels of discrimination (p. 272). From my knowledge, at present, the degree to which contextual-level factors (e.g., ethnic/racial composition and density, neighborhood unemployment and level of poverty) are associated with perceptions of discrimination among Latina/os is not known.

At the same time, historically, Cuban women (particularly in South Florida) have worked in family-owned businesses or in enclave firms<sup>25</sup> (Portes & Bach, 1985; Portes & Jensen, 1989). In these environments, Cuban women have been found to benefit (through

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<sup>25</sup> Portes and Bach (1985) define the enclave as the sum of "firms of any size which are owned and managed by members of an identifiable cultural or national minority." Further, enclave employment typically means the employee works for an employer of the same country of origin.

increased earnings) from employment in enclave firms in Miami (Portes & Jensen, 1989). Thus, to the extent that Cuban women find themselves working in Cuban-owned businesses, they may be more likely to perceive less discrimination than other groups of Latinas. In fact, Gilbertson (1995) found that enclave employment for other Latinas (Dominicans and Colombians) did not confer them economic privileges (e.g., higher wages, fringe benefits) or opportunities for advancement; and noted that there was minimal doubt that dynamics of work environments, such as discrimination and occupational segregation by gender partially account for women's disadvantage. Therefore, the benefits that have been observed for Cuban women do not necessarily extend to other Latinas. In as much as perceived discrimination is associated with social context, Cuban women's low reports of perceived discrimination compared to that of the other groups (men and women) is perhaps partly attributed to being part of a majority group in numerous settings.

Second, Cuban women, compared to other Latinas, possess more resources (e.g., social capital, professional-level jobs) as a function of higher levels of education and household income. In fact, the most current national figures indicate that Cuban women have the highest levels of income and of education (CPS, 2010). This parallels data from the present study that revealed Cuban women had higher levels of education (over 50% having 13 or more years of education) and were relatively more economically stable (nearly 50% having a household income of \$35,000 and over) than the other groups of Latino women. Perhaps for Cuban women, perceptions of discrimination are also closely tied to class position and contextual-level factors such as types of employment. That is, unlike other Latinas, particularly Puerto Rican women (who after Puerto Rican men in

the study reported the highest levels of perceived discrimination), Cuban women may report lower levels of discrimination because individual as well as contextual-level factors buffer them from being subjected to differential treatment, particularly in Miami. For instance, sample items from the discrimination scale included having been treated with less courtesy or respect, people thinking one is not smart, and people acting as if one is not as good as they. It may be that given Cuban women's relatively higher levels of education, income, and greater participation in professional-level jobs, they do not perceive that people think less of them or treat them differently or with no respect. Therefore, in the context that Mexican and Puerto Rican women experience similar economic and social disadvantages as their male counterparts, it is quite plausible that they come to differ from Cuban women on the extent to which they perceive discrimination as a function of their participation in different types of employment and class status, and not just their ethnicity and gender.

Similarly, some women of color are positioned differently than other women of color, largely as a result of their relation to men<sup>26</sup> with relatively higher levels of economic and social status. In particular, women benefit indirectly through marriage. Thus, the relational context provides a unique lens from which to examine how individuals thought to have less power (e.g., women) may benefit from access to other forms of it (e.g., economic, access to resources) through their relationships with those who hold more power in these domains (e.g., men) within specific contexts. That is, individuals exist within various forms of relationships (e.g., to other human beings, to social institutions) and contexts (i.e., families, physical places), and power also includes

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<sup>26</sup> I recognize that not all women are partnered or have male partners. This argument, however, focuses not only on women's relation to men as partners or wives, but also as sisters and daughters.

control over resources. In the case of Cuban women compared to Mexican women, both groups have a similar proportion of being married<sup>27</sup>. However, in contrasting these two groups of women, Mexican women's relational position to Mexican men—also a socially marginalized group—might not accord Mexican women the same social “protections” that are extended to Cuban women vis-à-vis Cuban men. On the other hand, Puerto Rican women are less likely to be married<sup>28</sup>, and even when they are partnered, they may still not have the same access to privileges as Cuban women do through marriage<sup>29</sup>. This is exemplified through a respondent from Toro-Morn's (1995) study of working- and middle-class Puerto Rican women noting that, “...one paycheck was like nothing. We put together both paychecks and there were times that we had very little next to nothing left” (p. 720). Further, given the Other Latino female category is comprised of a diverse group of women, one could still reason that they are more similar to Mexican and Puerto Rican in terms of their relation to men, since this subgroup includes segments of disadvantaged groups of women (e.g., Dominicans, Central Americans)<sup>30</sup>.

Viewed in this context, it can be argued that Mexican, Puerto Rican, and Other Latino women's relationship to men in their group might not leverage against or balance out their marginalized status as “Latino women,” as it seems to be the case for Cuban women—reflected in their low rates of perceived discrimination. It could be further argued that one could extend Hurtado's (1984) argument that “white women's

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<sup>27</sup> Based on 2000 Census figures (the closest approximation to the NLAAS data collection period), Cuban and Mexican women had proportions of 55.27% and 58.27%, respectively, of being married.

<sup>28</sup> Based on 2000 Census figures, the percent of married Puerto Rican women was 35.05%.

<sup>29</sup> In fact, Perez (1986) noted that the successful adjustment of Cubans was “largely a family, rather than individual, phenomenon” (p. 4).

<sup>30</sup> In fact, rates of those living below the poverty level for Other Latinos (based on Census 2000 figures) was almost 21%, whereas it was 23.51% for Mexicans and 25.84% for Puerto Ricans in contrast to only 14.56% of Cubans.

relationship to white men (the highest earners in society) as daughters, wives, or sisters gives them an ‘economic cushion’” (p. 837) to Latinas, in that Cuban women’s unique relational position to Cuban men (the highest earners of all Latino subgroups) as “daughters, wives, or sisters” also gives them the economic cushion and social benefits that may make them less vulnerable to experiences of discrimination—sources of power and privilege to which other Latinas have less access. Perceptions of discrimination among Cuban women (as well as that of other Latinas) might reflect not just their own class position, but also that of their relationships to others (e.g., men, family) and their social context.

Indeed, Pratto and Walker (2004) contend that there are different bases of power and by extension, privilege. These scholars argue that “often power is confused with other constructs (e.g., prestige, wealth) and seen as a fixed property of persons or groups” (p. 243), although power is also relational, dynamic, and contextual (see Neal & Neal, 2010 for a discussion of power in psychological research). An intersectional perspective helps elucidate how the social positioning of Latinos, at the nexus of ethnicity, gender, and social class, influences their susceptibility to social marginality (e.g., discrimination). By extension, the aforementioned forms of status and privilege that Cuban women partake of may perhaps help protect them from the social discrimination and vulnerability that women from other Latino groups come across.

Interestingly, my second hypothesis—that Cuban men would report the highest levels of perceived social status and Puerto Rican men the least—was not supported. In fact, Puerto Rican men reported the highest levels of perceived social status and Mexican men the least. The finding that Puerto Rican men reported the highest levels of perceived

social status in the U.S. may seem counterintuitive at first. Puerto Rican men in the sample reported the highest levels of perceived discrimination, and in general have consistently remained one of the poorest Latino subgroups, and among the poorest U.S. citizens (De Genova & Ramos-Zayas, 2003). Still, all Puerto Ricans hold U.S. citizenship status that can indeed translate as a marker of high social status in the U.S. That is, the status that is associated with being an “American” citizen versus an “immigrant,” along with the status and power associated with being a male in both Puerto Rico and U.S. mainland, may have led Puerto Rican men to conceive of themselves as occupying a higher social status in the U.S. relative to that found among other Latinos.

Indeed, the meaning of citizenship for Puerto Ricans is one that differs from that of other Latinos, irrespective of whether other Latino individuals were born in the U.S. (González, 2000). For example, on the one hand, Puerto Rican men may *be* American by virtue of holding U.S. citizenship, but on the other hand may *feel* Puerto Rican, particularly as a function of being treated as foreigners and viewed as immigrants by European Americans (Barlow et al., 2000; Flores & Benmayor, 2004). In fact, Verkuyten and de Wolf (2002) suggest that there is a distinction between being and feeling. That is, being is linked to recognition of a category (e.g., ethnic label), whereas feeling is associated with an individual’s inner acceptance of the category (Deaux, 2006). For instance, Ratcliffe (2005) argues that the feeling of “being an American” encompasses interpretations of nationality and nationhood. This can be illustrated by a Puerto Rican male participant from Park-Taylor and colleagues’ (2008) study wherein the participant noted, “So I would say that I identify myself as an ‘I’m-a-rican,’ which describes a Puerto Rican American, although according to law, I’m technically American” (p. 133).

Thus, as Deaux (2006) noted in her theoretical work on the construction of identity among immigrants, social and collective identities carry with them “a range of meanings and assumptions about one’s definition of self, about value and importance, about social networks and cultural history” (p. 99). Likewise, these identities typically reflect societal exclusion (Park-Taylor et al., 2008). In this context, the present findings seem relevant for understanding the way in which meaning attached to symbolic representations of social status (e.g., birthright citizenship) may come to be implicated in one’s self-concept. Puerto Rican men may draw upon their U.S. citizenship to define their social status in the U.S. in the face of social and economic discrimination. In fact, immigrant scholars such as Fernandez-Kelly and Schauflier (1994) noted that an immigrant’s self-definition is shaped by “iterative processes of both symbolic as well as factual associations and detachment” (p. 682) with the larger society. That is, these scholars argue that immigrants learn where exactly they fit within the larger society through the acquisition of knowledge and interactions with others in a number of contexts.

Likewise, following a social psychological perspective, the need for a positive self-identity may motivate individuals in stigmatized social groups to make social comparisons that favorably differentiate them from the out-group (Gaertner et al., 1999). Among Puerto Ricans, viewing their culture (i.e., Puerto Rican culture, use of the Spanish language, identifying as Puerto Ricans) positively is not uncommon (De Genova & Ramos-Zayas, 2003; Gonzalez, 2000). Perhaps for Puerto Rican men, social comparisons that place them in a more positive light (i.e., higher social status) may reflect the sociocultural context in which Puerto Ricans are embedded that thereby influence their

motivation to favorably differentiate themselves as a function of their marginalized status in the U.S. That is, Puerto Rican men's "struggle for place" in the U.S. may involve constructing identity through culture (Weis, Centrie, Valentin-Juarbe, & Fine, 2002). In fact, this parallels Mahalingam's (2006) theory of idealized cultural identities, in which he situates immigrants' need for constructing positive idealized social identities as a way of coping with their marginalized social locations in the U.S. context. As he argues, social marginality heightens our need for understanding cultural conceptions of identity and internalization of idealized cultural beliefs (Mahalingam, 2006). In this case then, the finding that Puerto Rican men reported higher levels of social status in the U.S. does not seem paradoxical when framed within a cultural and social psychological perspective. The juxtaposition of Puerto Ricans as American citizens while maintaining strong cultural affiliations to Puerto Rico make the case of Puerto Ricans a particularly unique context for examining perceptions of social status in the U.S. mainland. Indeed, qualitative studies that attempt to capture the phenomenological experience of social status among Puerto Rican men may provide a more nuanced understanding of the complex interconnections between ethnicity, gender, and nationality, and their influence on Puerto Rican men's self-concept, identity negotiation, and perceived status within the U.S. context (cf. Landale & Oropesa, 2002).

At the same time, it is not all that paradoxical either that Mexican men reported the lowest levels of perceived social status in the U.S., particularly because they have tended to be relegated to the lowest rung of U.S. society and depicted in a negative light. For example, Mexicans have been depicted as "illegal aliens" and perceived in derogatory terms, including being seen as lazy, ignorant, unintelligent, and inferior

(Cross & Maldonado, 1971; De Genova & Ramos-Zayas, 2003; Niemann-Flores, 2001). Indeed, social identity theory (Tajfel, 1981; Tajfel & Turner, 1986) would suggest that these negative stereotypes are powerful forces that can become embedded in an individual's social consciousness and thus internalized, and can in turn negatively affect collective/group esteem and personal identity (Niemann Flores et al., 1999; Niemann-Flores, 2001; Steele, 1997). For example, studies on in-group stereotyping have shown that Chicana/os themselves have also described their group in negative terms, such as portraying their group as having little worth, classified as dropouts/uneducated, and inferior (Casas, Ponterotto, & Sweeney, 1987; Mindiola, Rodriguez, & Niemann, 1996). Importantly, Niemann-Flores (2001) noted that Chicana/os are more likely to be vulnerable to stereotype internalization, given that "conflicting messages between their homeland identities and the comparatively negative U.S. stereotypes may create dissonance and/or confusion" (p. 56), especially because "most of them have lived close to their homeland—a proximity that has helped reinforce their language, identity and culture" (Takaki, 1993, p.8). Certainly, negative societal portrayals of Mexicans may shape their individual beliefs and perceptions of themselves in specific ways (e.g., occupying a lower social status) within U.S. society (Kunda, 2000).

Together, the findings on perceived social status suggest that different dimensions of power and privilege may play a role in how Latinos conceive of themselves within the U.S. context. Dimensions of social status may include status-based (e.g., income, education), category-based (e.g., male, heterosexual), and self-reported (e.g., subjective) forms. Likewise, each and any one of these dimensions may have different meanings between and within Latino subgroups. For example, Latino men and women may differ

on the meaning of social status, since research on self-construals notes that men and women place significantly differential weighting on self-descriptions and self-evaluations, and that “these distinctions are internalized as distinct gendered values and standards” (Gardner & Gabriel, 2004, p. 183). Thus, it is important to attend not only to the *extent* to which Latino subgroups differ on perceived social status in the U.S., but also to examine *distinctions of types* of social status for different subgroups (see Gardner & Gabriel, 2004 for a discussion of gender differences in types of self-views). Therefore, although any of the status-based categories may be used as proxies of social status, they may or may not correlate with one another, and may also carry different weight and hold different meanings across groups. Indeed, the present study findings imply that the measurement of social status requires further attention in order to potentially explain how and why perceived social status affects some groups and not others in the health context (see Krieger, 1991 for a discussion of methodological issues concerning the measurement of social class standing in public health research).

Conceptually, the constructs of everyday discrimination and social status as dimensions of social marginality merit further study among Latina/os, particularly because of the vast heterogeneity of social experiences noted among this group. Mahalingam (2006) highlighted the need to look at the role of social location in the experience of social marginality in order to more critically understand “how multiple category memberships position individuals and groups in asymmetrical relation to one another, affecting their perceptions, experiences, and outcomes” (Cole, 2009, p. 173). Indeed, where Latinos are concerned, intersections of social identities such as SES, citizenship status, gender, ethnicity and race, will codetermine how different groups

within this pan-ethnic label are exposed to discrimination and how they come to perceive themselves in the U.S. context. Taken as a whole, the diverse experiences of social marginality found across Latino subgroups provide insight as to how this may differentially shape the process by which discrimination comes to affect health.

### **Discrimination and Health: The Role of Subjective Social Status and Psychological Distress**

The entire path model by which everyday discrimination comes to affect self-rated physical health (Discrimination→Social Status→Psychological Distress→Health Status), adjusting for covariates, was supported by the data. That is, the tested path model is one plausible model for understanding the link between discrimination and self-rated physical health, particularly given the sum of the indirect paths to self-rated physical health (i.e., the different ways of getting to health) was significant for the total sample, while adjusting for covariates.

In terms of the specific indirect paths, there was no support for the first hypothesis that social status and psychological distress *together in the same path* would mediate the relation between discrimination and self-rated physical health. However, support for the second hypothesis was found. That is, psychological distress alone partially mediated the relation between discrimination and self-rated physical health among the total sample, while adjusting for covariates. More specifically, perceived discrimination was related to greater levels of psychological distress, which in turn was related to poor self-rated

physical health<sup>31</sup>. Indeed, Williams and colleagues (1994) noted that discrimination—either at the institutional or individual level—has the potential to transform social status, and this transformation can have a bearing on psychological factors and health status. Likewise, consistent with studies discussed in the literature, discrimination increases psychological distress and in turn adversely affects physical health (Nuru-Jeter et al., 2008; Operario et al., 2004; Todorova et al., 2010).

Additionally, although not hypothesized in Williams et al.'s model, the present study found that perceived social status in the U.S. also partially mediated the path from discrimination to self-rated physical health while adjusting for covariates, indicating that perceived discrimination was associated with a perceived lower social status, which in turn was associated with poor self-rated physical health among the total Latino sample. In fact, researchers have noted that over time, discrimination can bring about socioeconomic disadvantages, thereby contributing to accumulation of multiple stressors over the life-span (Gee, Spencer, Chen, & Takeuchi, 2007). Importantly, Williams et al. (1994) noted that one's socioeconomic status is not just a confounder, but also part of the causal pathway by which discrimination affects health.

It should be noted however, that the estimate for the indirect effect of discrimination to self-rated physical health including perceived social status in the U.S. as a single mediator in this relation was quite small (i.e., the estimate was virtually zero), suggesting that it is psychological distress that is contributing the most to the significant total indirect effect. In fact, it is important to note that when a sensitivity analysis was conducted to determine whether the estimate of the total indirect effect of the path from

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<sup>31</sup> It should be noted that testing of indirect effects were not run separately from the path analyses. That is, the path-analytic model included testing of all indirect effects as would be done in an SEM framework where all direct and indirect paths are tested simultaneously.

discrimination to self-rated physical health (with both perceived social status and psychological distress together in the same path) remained unchanged after replacing perceived social status in the U.S. with perceived social status in one's community, the estimate of the indirect path became significant. This suggests that perceived social status in one's community may be a more robust measure for Latinos.

This may be so given that Latinos establish residence in different types of communities (e.g., rural, ethnically dense communities), which can influence the extent to which they acculturate, experience discrimination (Myers, 2008), and thereby come to perceive themselves in relation to others. Mahalingam (2006) argues that ethnic enclaves provide different vantage points for social comparisons between and within social groups. Moreover, Suarez-Orozco and Qin-Hilliard (2004) argue that for immigrants living in ethnic enclaves, because of their infrequent contact with mainstream U.S. society, identification with the host culture becomes more of an abstraction. Thus, in the present study it may have been that the measure of perceived social status relative to others in the U.S. as opposed to those in their community may be more of an abstraction. Likewise, it is likely that for Latinos (which include foreign-born persons), this measure may be a relatively more important measure, since for immigrants in particular comparisons are not solely limited to U.S. persons (Franzini & Fernandez-Esquer, 2006; Leu et al., 2008).

Certainly, examining the influence of self-reported everyday discrimination on subjective social status through a social-ecological context would be appropriate, since perceptions of one's social status relative to others in one's community and/or in the U.S. may be precipitated by the geographic context in which an individual is located (cf. Reitzel et al., 2010). For example, Reitzel and colleagues (2010) found among Spanish-

speaking Latino immigrants in Texas, that before adjustment of demographic and acculturation variables, neighborhood characteristics (assessed by 2000 US Census tract data), including more unemployment, more poverty, and lower median household income predicted lower subjective social standing. As the authors of this study noted, neighborhood-level economic deprivation can contribute to a perceived low social status among Latinos partly as a function of the density of less acculturated Latino immigrants residing in economically disadvantaged neighborhoods (Reitzel et al., 2010).

Without a doubt, more research is needed that elucidates how the immigration context, including context of reception (e.g., the structural and social composition of the neighborhood) as well as the immigrant-adaptation process (e.g., acculturation and enculturation) of Latinos, influences the extent to which perceived discrimination comes to affect their perceptions of status in the U.S., and consequently, their health status (Guarnaccia et al., 2007; Viruell-Fuentes, 2007). Likewise, inclusion of other dimensions of socioeconomic status may also provide greater insight as to how discrimination comes to affect other proxies of social status (e.g., educational attainment) that certainly have the potential to influence health. Particularly where Latinos are concerned, such findings provide a glimpse into the complex ways in which discrimination may influence different forms of social status and in turn, mental and physical health.

Notwithstanding, from the present findings, it seems that embodiment of discrimination expressed through poor self-rated physical health may be explained because perceived discrimination can provoke internalization of a perceived lower social status and generate psychological distress (Krieger, 2000), although not necessarily through both these mechanisms together in a multi-stage process. Replication is clearly

needed before definitive conclusions can be made between any of the pathways connecting discrimination to health among Latinos and any other racial or ethnic group. More research is needed to understand the complex ways in which discrimination as a form of chronic stress relates to other stressors (e.g., low perceived social status); and thereby, how they come to affect mental and physical health. Indeed, Myers (2009) notes that to date, it is unclear whether ethnic and SES-related stressors exert their effects on health additively or synergistically; thereby, remaining an important question for future research.

### **Direct Effects of Everyday Discrimination on Social Status and Health Outcomes**

This study also examined the direct effects of perceived discrimination on perceived social status and health outcomes (e.g., psychological distress and self-rated physical health). Consistent with the discrimination literature, it was found that everyday discrimination was associated with greater levels of psychological distress, lending further support to the robust relation that has been found between discrimination and mental health (Paradies, 2006). These findings are not surprising given that everyday discrimination has been understood to be a form of chronic stress. That is, for ethnic minorities, pervasive and more severe experiences of discrimination, rather than isolated occurrences are thought to adversely affect psychological well-being (Major et al., 2002).

However, an inconsistent finding with the literature was that the direct effect of discrimination was related to better self-rated physical health. The inconsistent findings may be partly attributed to confounding between the exposure and outcome variables. In some cases, confounders might reverse the direction of the effect. For example, those

who perceived more discrimination were men, but being male was associated with better health. It would be a mistake to attribute the effect of discrimination on health just to discrimination as opposed to the protective effect of male gender. One way to reduce the effect of possible confounders is by stratification. In fact, multiple-group analysis (data shown in multiple group analysis section) revealed different patterns in direction and significance for this association when stratified by both gender and subethnicity, and adjusting for age. These results partly suggest that collapsing all Latinos seems to obscure that this particular association is not noted among all subgroups, and thereby, producing a somewhat artifactual relationship between discrimination and health status. Likewise, findings across studies will differ at times because results typically vary depending on the covariates included in the models, as well as a function of the samples employed. As such, caution should be taken regarding the comparability of the present findings with those of other studies. At the same time, the present findings are not surprising, given a few studies have found either a positive association between discrimination and physical health, or have found no significant relation at all (Harrell et al., 2003; Paradies, 2006). In fact, it has been noted that the relation between discrimination and physical health—measured either objectively or as self-report—is not as consistent or robust as is the relation between discrimination and mental health<sup>32</sup>.

Overall, the results on the direct effects of discrimination on psychological distress and self-rated physical health seem to suggest that the accumulation of day-to-day forms of discrimination is most strongly associated (i.e., based on the standardized

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<sup>32</sup> It could also be that if we reverse the causal arrow, such that self-rated physical health is associated with discrimination, we may find that healthier people are more likely to report more discrimination, given they are more likely to get out, to work, etc. compared to their less healthy or ill counterparts; thereby, increasing their chances of encountering outgroup members and being discriminated against.

path coefficients) with Latinos adults' mental health than their self-rated physical health—a finding that is consistent with the discrimination and health literature. That is, the costs associated with these daily experiences of discrimination seem to have more “wear and tear” on psychological well-being as opposed to physical health—a process which may take longer to observe, especially if chronic physical health conditions are not assessed with objective measures. In essence, discrimination seems to be functioning in a similar manner to other chronic stressors (e.g., financial stressors), whereby its effects seem to be embodied as psychological responses.

It was also found that perceived discrimination was directly associated with a lower perceived social status in the U.S. Indeed, members of stigmatized groups who are aware of society's negative views of their group may internalize negative evaluations or unfair treatment. In fact, Philosopher Charles Taylor (1994 as cited in Suarez-Orozco & Qin-Hilliard, 2004) argues that:

our identity is partly shaped by recognition or its absence, often by the misrecognition of others, and so a person or group of people can suffer real damage, real distortion, if the people or society around them mirrors back to them a confining or demeaning or contemptible picture of themselves (p. 181).

In a sense then, the findings of this study suggest that in the face of discrimination, Latinos may come to internalize this differential treatment as reflecting a form of negative social mirroring, and thus may come to believe they occupy a lower social status in the U.S. Thus, as mentioned earlier regarding Mexican men and their perceptions of social status, it seems that perceived social status may be a function of negative social mirroring that may occur as the process by which individuals are socially marginalized (Suarez-Orozco & Suarez-Orozco, 2001). Clearly, the psychological responses to

discrimination via perceptions of one's social status in the U.S. may compromise the health of Latinos. In fact, Spencer (1999) noted that "it is not merely experience, but one's perception of the experience in culturally diverse contexts" (p. 42) that can have an impact on psychosocial outcomes.

### **Linking Subjective Social Status to Health Outcomes**

As previously mentioned, numerous scholars have noted that one's social status in the social hierarchy is a major social determinant of health inequality (Adler et al., 2000; Vega et al., 2009; Williams et al., 1997). In the present study, a higher perceived social status was associated with lower levels of psychological distress and better self-rated physical health. These findings corroborate with those of Alegría et al.'s (2007) study, wherein perceived high social status decreased the risk of psychiatric illness among Latinos (using the NLAAS). Together, the present findings and those of Alegría et al. (2007) suggest that whether mental health is measured broadly (i.e., psychological distress) or measured by diagnostic criteria, a perceived high social standing seems to serve a protective function for the mental health of Latinos. In fact, perceived social status has been found to be a more robust predictor of mental health than of physical health, similarly to the findings noted for the association between discrimination and mental and physical health (Adler et al., 2000).

Nevertheless, present study results revealed that a perceived social status in the U.S. seems to also be protective of poor self-rated physical health, such that a higher perceived social status was associated with better self-rated physical health. These findings are consistent with several studies that find a similar association between

perceived social status and health outcomes across different racial and ethnic groups (Leu et al., 2008; Ostrove et al., 2000). However, only a few studies have examined this association among Latinos, and the findings have been contrary to the present study findings. For example, Franzini and Fernandez-Esquer (2004) found that among a sample of low-income Mexicans, subjective social status was associated with self-rated mental health and self-rated health, but not with self-rated health after adjusting for objective SES status. Likewise, findings from Ostrove et al. (2000) revealed that among Latinas, the association between perceived social status and self-rated health became non-significant after adjusting for crude measures of SES. It seems that when looking at Latinos as an aggregate, the present findings parallel those of other studies in contrast to those studies that have focused on specific groups of Latinos. However, important to note is that these studies differ in their measure of physical health, with some measuring physical health and others measuring global health. Thus, the mixed findings across studies may be a function of the measures used, samples employed, and/or the covariates included to adjust for objective SES. Even so, the present study found that at least among a national sample of Latinos, a perceived higher social status in the U.S. is associated with better psychological and physical well-being.

### **The Association Between Psychological Distress and Self-Rated Physical Health**

Consistent with the hypothesis that psychological distress would be associated with poorer self-rated physical health; indeed, in the present study, greater levels of psychological distress were associated with poorer self-rated physical health. This finding corroborates with research on Latinos that shows that psychological distress is one

mechanism by which discrimination affects physical health (Finch et al., 2001; Todorova et al., 2010). At the same time, a number of studies conducted in the U.S. have documented higher levels of somatization among Latinos (Canino, Rubio-Stipec, Canino, & Escobar, 1992). In fact, in the present study, psychological distress was one of the strongest risk factors of poor self-rated physical health. These findings are consistent with Angel and Guarnaccia's (1989) study, wherein Latinos' (i.e., Mexican Americans and Puerto Ricans) assessment of their overall health status was strongly influenced by their affective states (e.g., depressive affect). Therefore, it seems that for Latinos, psychological distress may come to manifest itself somatically.

#### **Discrimination and Health: At the Intersection of Gender and Ethnicity**

In order to examine whether the intersections of social identities (e.g., gender x subethnicity) moderated the paths (as a whole) from discrimination to self-rated physical health, multiple-group path analysis was employed. Results revealed that the relationships (as a whole) in the path model are a function of both gender and subethnicity (i.e., moderated mediation). Drawing from an intersectionality perspective, which highlights the importance of not separating ethnicity from gender (or any other social identity for that matter), the results suggest that to have only examined the model fit by gender or ethnicity independently and not interactively, would have obscured the fact that both gender and ethnicity play a role in the patterns noted in the model. More specifically, the invariant path model did not provide as good of a fit when compared to the unconstrained model (i.e., where paths were allowed to vary across groups). In fact, forcing all of the eight Latino subgroups to be the same resulted in a statistically

significant worsening of the overall model fit; thus, rejecting the null hypothesis that the paths (as a whole) are the same for these groups.

In terms of the tested indirect effects, some consistent findings with those of the total sample were found. That is, the indirect path from discrimination to self-rated physical health—through both perceived social status and psychological distress—was not significant. However, psychological distress (without perceived social status in the same path) partially mediated the relation between discrimination and self-rated physical health for all gender by subethnic Latino subgroups, with the exception of Cuban and Puerto Rican males. For all groups except Cuban and Puerto Rican males, greater frequency of perceived discrimination was associated with greater levels of psychological distress, which in turn was related to lower self-rated physical health. It is important to first note the similarities across all other Latino groups (Cuban women, Puerto Rican women, Mexican men/women, and Other Latino men/women), as these results reveal a main pathway through which most groups of Latino adults come to be affected by perceived everyday discrimination, suggesting that the results for the total sample mostly reflect the findings noted for Mexican men and women, Puerto Rican women, and Other Latino men and women. These results indicate that psychological distress may be one mechanism by which discrimination harms physical health. For example, discrimination can yield affective responses and emotional harm, and thereby, discrimination may affect the physical health of most groups of Latino adults not only through the experience of stress, but also through psychological well-being (Harrell, 2000). These findings therefore corroborate what prior studies show regarding the psychological costs of experiencing discrimination (Araújo & Borrell, 2006; Paradies, 2006).

Further, when taking a closer look at these findings, results of the direct effects of discrimination on other main variables revealed that discrimination was not significantly related to psychological distress for Cuban and Puerto Rican men. Thus, the fact that psychological distress did not mediate the relation between discrimination and self-rated physical health is partly attributed to the fact that discrimination was not associated with psychological distress for both groups. Moreover, although it is not too surprising that discrimination did not have an adverse effect on Cuban males in particular, given the sample mostly resided in Miami, FL and in this context Cuban males occupy a privileged social status relative to other subgroups of Latinos (Portes & Rumbaut, 2001), it was particularly not expected that discrimination would not have a direct effect on psychological distress for Puerto Rican males. However, though Cuban and Puerto Rican males each seem to occupy opposite ends of the social status hierarchy for Latinos, with Cuban males occupying a socially and economically privileged standing and Puerto Rican males occupying a disadvantaged social and economic standing in the U.S., from an intersectional perspective, both groups occupy positions of power and status. Indeed, paying attention to the ways in which power and status are implicated in social identities is critical to understanding why some groups may not come to be adversely affected by discrimination (in some domains) as others. For example, Cuban males have greater access to social and economic resources relative to their male and female Latino subgroup counterparts, whereas Puerto Rican males are all U.S. citizens and still have relatively higher levels of income (from the present data) than most groups of women (the exception being Cuban women). Likewise, both groups occupy a high social standing as males relative to their female counterparts. This suggests that at least for

these two groups of Latino men, intersections of privileged social identities may provide some leverage against the detrimental effects of discrimination on mental health noted for the other Latino groups in the sample.

On the other hand, perceived social status mediated the discrimination-self-rated physical health relation only for Puerto Rican males—consistent with findings from the total sample path model. That is, greater frequency of discrimination was related to a lower perceived social status in the U.S. In turn, a perceived low social status in the U.S. was related to lower self-rated physical health. These findings suggest that at least for Puerto Rican males, discrimination may be embodied through poor self-rated physical health vis-à-vis their perception of social status in the U.S. rather than through a direct effect. Indeed, descriptive findings noted earlier showed that Puerto Rican males reported the highest levels of perceived social status in the U.S. compared to the other Latino subgroups. In this context, it is plausible that at least for Puerto Rican males, status-based markers (e.g., perception of social status, socioeconomic status) as opposed to psychological factors, more strongly contribute to poor self-rated physical health in the face of discrimination. For instance, perhaps in the face of being socially and economically marginalized (e.g., high rates of unemployment and poverty levels), Puerto Rican males may come to perceive their social status (as American citizens) threatened when they perceive they are targets of discrimination, thereby engendering poor physical health, as opposed to discrimination being an independent determinant of poor self-rated physical health among this group (cf. Jackson, Kubzansky, & Wright, 2006; Major et al., 2007).

Moreover, extending the point made earlier about Puerto Rican males, perhaps “feeling” that they occupy a high social status in the U.S. given they are Americans but not actually being thought of as Americans, may add an additional stressor to that of perceiving discrimination, in turn affecting them more in relation to their self-assessed physical health (as they have already been found to rate their physical health as poorer; Angel & Guarnaccia, 1989; Zsembik & Fennell, 2005) in comparison to other Latino subgroups. Such an explanation is plausible, given studies have found that among Latinos, perceived racism is associated with other minority stressors and somatization (Alamilla et al., 2010). In the case of Puerto Ricans males, it may be that poor self-rated physical health is a function of somatizing distress resulting from status-based stressors (e.g., discrimination, low social status), particularly since Puerto Ricans in general are more likely to somatize distress (Canino et al., 1992; Rogler, Cortes, & Malgady, 1994) and are markedly more likely than other Latino males to have a socioeconomically high-risk profile<sup>33</sup>.

Further, Richman and Leary (2009) note the importance of including the role of social cognitions in discrimination research in order to understand the cognitive processing that takes place when one is discriminated against. For example, chronic experiences of discrimination may heighten Puerto Rican males’ attention to negative social information, that may in turn compromise their perceived value in society, which in turn may then affect their self-rated physical health (Richman & Leary, 2009).

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<sup>33</sup> Sylva (1997) found that Puerto Ricans were more likely than non-Hispanic Whites to express more somatic complaints, and these differences were associated with a lower socioeconomic profile (e.g., lower education, lower household income). In this case, perhaps differences between Puerto Rican males and other Latino males and females in the indirect effects of discrimination on self-rated physical health through perceived social status may be partly accounted for by Puerto Rican males’ lower socioeconomic profile. Such is plausible given that Zsembik and Fennell (2005) found that Puerto Ricans with worse health tend to be concentrated in lower levels of SES.

Similarly, Jackson and colleagues (2006) suggest that the closer the sense of perceived unfairness is to one's self, the more severe the degree of the psychological outcome. In this case, perhaps physical health more so than psychological well-being may come to be more compromised by the internalization of discrimination vis-à-vis a perceived lower social status.

Moreover, given that gender by subethnicity moderated the overall model paths, post-hoc analyses were conducted to examine which group(s) might be driving the difference this difference. Results revealed that for Cuban women, only psychological distress partially mediated the discrimination-physical health link, consistent with the findings noted for all other Latino subgroups (collapsed into one group). However, the link between discrimination and self-rated physical health was also partially mediated by perceived social status for all other Latino groups, but not for Cuban women. That is, perceived discrimination was related to a lower perceived social status, and in turn, this was related to poor self-rated physical health for all other Latinos except Cuban women. Several reasons are provided for these findings.

One potential explanation for the lack of association found between perceived discrimination and perceived social status among Cuban women could be the restricted range of variance in the discrimination variable among Cubans. Cuban women reported the least amount of perceived discrimination across all subgroups. Moreover, these findings suggest that at least for Cuban women, perceived discrimination does not seem to negatively influence their perceptions of social status. Portes and Zhou (1993) put forward the theory of segmented assimilation, which provides a useful framework for understanding these results. For example, segmented assimilation highlights the

importance of contextual, political, economic, and social forces—including vulnerability and resources—that lead to diverse outcomes in the process of adaptation for immigrant groups. That is, varying modalities of incorporation, differential access to social resources and social mobility for different segments of an ethnic group will shape their psychosocial adaptation.

Thus, to the extent that Cuban women benefitted from the rather positive incorporation of Cubans to the U.S. as well as access to economic and social resources (thereby embodying a relatively privileged social status), it is likely that this provides a context for examining how gender and ethnicity intersect with socioeconomic status to produce differences in responses to psychological challenges (i.e., discrimination). These findings are noteworthy, particularly because prior research examining the moderating role of gender on the discrimination-mental health relation among Latinos (using the NLAAS) found that only for Cubans, but not for any other Latino subgroup, does gender moderate this relation (Molina, Mahalingam, & Alegría, under revision). Specifically, in the face of discrimination, Cuban women were more likely to experience higher levels of psychological distress compared to Cuban men. These findings in comparison to those found for the discrimination-social status relation among Cuban women seem to suggest that embodying a privileged social location may have negative psychological consequences (e.g., psychological distress), but be protective of Cuban women's perceived social status in the U.S. Perhaps for those who already have financial stability (e.g., middle-class and/or first and second-generation wave Cuban women), perceived social status in the U.S. may not hinge on experiencing discrimination. These significant differences between Cuban women and other groups of Latinos illustrate the importance

of attending to both marginalization and privilege (not just one or the other); the way in which they shape internalization; and thereby, how they in turn influence health. Thus, as Pearlin (1989) noted, the social structures in which individuals are embedded will determine the stressors they encounter, the experience of stress, as well as the coping resources they are able to garner.

### **Contours of Differences in Embodiment: Direct Effects of Everyday Discrimination on Subjective Social Status and Health Outcomes**

Findings across the eight different Latino subgroups indicated that self-reported everyday discrimination was both similarly and differentially associated with subjective social status in the U.S. and health outcomes across these groups. First, everyday discrimination was significantly associated with subjective social status in the U.S. only among Mexican men and both Puerto Rican men and women. Thus, the results for the total sample that showed everyday discrimination was associated with a perceived low social status is partly reflecting the results from these three Latino subgroups (i.e., Mexican men, Puerto Rican men, Puerto Rican women). These findings are particularly interesting given Puerto Ricans in general report higher levels of everyday discrimination in comparison to other Latino subgroups; and therefore, higher levels of perceived discrimination seem to contribute to perceptions of low social status for Puerto Rican men and women. On the other hand, Mexican men reported the lowest levels of perceived social status in the U.S., suggesting that indeed, perceived discrimination is one mechanism that influences perceptions of low social status in the U.S. As mentioned earlier in the discussion of the total sample results, social identity theory demonstrates

that marginalized individuals feel a need for a positive self and group identity (Tajfel, 1981). However, in the context of perceived discrimination, at least for these three Latino groups (i.e., Mexican men, Puerto Rican men, Puerto Rican women), the internalization of perceived discrimination may override any positive evaluation they may have had of themselves or their group.

On the other hand, findings from the moderating effects of Latina/o subgroup membership on the association between discrimination and subjective social status suggest that at least for Cuban men, the application of Tajfel's (1981) social identity theory might be more relevant. That is, at every level of perceived discrimination, being a Cuban male is associated with heightened levels of subjective social status in the U.S. compared to Puerto Rican women reporting similar levels of discrimination. Indeed, Crocker and Major (1989) asserted that there are self-protective properties of social stigma. For example, research finds that in response to perceived discrimination, ethnic minorities may assert their ethnic pride or strengthen their ethnic identity as a way of coping with such experiences (Phinney, 1990; Portes & Rumbaut, 2001). Thus, the present results seem to suggest a few things. First, among Cuban men, can still be discriminated against irrespective of their privileged status, perceiving their social status in the U.S. (which may be part of one's self-concept and identity) as higher may be a coping mechanism for dealing with unfair treatment when it is encountered. Indeed, several researchers have noted that ethnic minorities learn to negotiate their identities under socially challenging contexts—that is, in the context of discrimination and stigmatization (Deaux, 2006; Phinney, 1990; Portes & Rumbaut, 2001). Thus, the effects of discrimination on perceptions of social status among Cuban men compared to Puerto

Rican may be a function of context in which these experiences are negotiated. For example, among Cuban men, perceiving discrimination in Miami, for example, may not require as much negotiation as it might for a Puerto Rican female in the same or different social context. Second, it seems that Cuban males' privileged social location (which may accord them access to different types of resources) buffers them from the adverse effects of discrimination. In fact, Jackson and colleagues (2006) argue that one's social location can either amplify or buffer someone from the deleterious effects of perceiving unfairness. Particularly, they note that high status targets of discrimination may have more resources to enable coping compared to low status individuals (Jackson et al., 2006).

On the flip side, the effect of discrimination on social status is amplified (negatively) for Puerto Rican women, such that they are more likely than Cuban men to report a lower social status in the U.S. when faced with discrimination. Unlike Cuban men, Puerto Rican women (who report facing higher levels of discrimination than Cuban men) belong to at least two devalued social groups, and as suggested by Jackson et al. (2006), unfair treatment directed at members of low social status groups tends to be harsher, and thus, the consequences may be more severe. Thus, to the extent that the discrimination that Puerto Rican females perceive is harsher and more frequent, it may result in greater internalization of perceiving oneself as occupying a lower social status in the U.S.—especially compared to Cuban men, who are considered to be the most privileged of all Latina/o subgroups. To the degree that these two groups encounter divergent levels of discrimination and are afforded certain resources that protect them from internalizing unfair treatment, it is likely we will see differences in responses to

discrimination. Indeed, Jackson et al. (1998) noted that research on “particular adaptation strategies that oppressed groups display as they seek to define their own reality in the face of racism suggests that the positive or negative effects of adaptation strategies may vary” (p. 7).

Overall, these findings (both the significant and non-significant ones) contribute to the literature on discrimination, as this is the first time, to my knowledge, that anyone has examined the association between everyday discrimination and subjective social status in the U.S., especially among various subgroups of Latina/os. More specifically, the findings point to the importance of considering the role of social location.

Although most studies on perceived discrimination have focused on its association with mental health outcomes among Latinos as one group, understanding the psychological costs associated with perceived discrimination across different groups of Latinos is equally important. An examination of the association between perceived discrimination and health outcomes revealed that perceived discrimination was associated with greater levels of psychological distress for all groups except Cuban and Puerto Rican men (a discussion of the non-significant findings for Cuban and Puerto Rican men is provided earlier in the discussion). In so far that Cuban and Puerto Rican men benefit from forms of privilege that other groups of Latino men may not necessarily have (e.g., higher SES and birthright U.S. citizenship, respectively; or even access to health services), it is possible that despite being aware of discrimination targeted against them as Latinos, such “benefits” may provide immunity from psychological distress.

For example, Alegría, Mulvaney-Day, Woo et al. (2007) found that rates of mental health service and special service use were significantly higher among Puerto

Ricans relative to other Latino subethnic groups. Thus, to the extent that Puerto Rican males may have more access to health services (provided their citizenship status grants them greater opportunity to public insurance; Alegría et al., 2006) than other Latino males, perhaps they are not adversely affected by perceived discrimination to the extent that other Latino males are, given they are more likely to be insured and therefore may be more likely to access mental health services. Likewise, given that socioeconomic indices (e.g., household income, education, and family employment) are significant predictors of insurance outcomes (Alegría et al., 2006), it is plausible that given Cubans males' relatively higher levels of different measures of SES (e.g., income, employment, education), perhaps they are more likely to have coverage of private health insurance and access to various health services. The impact of perceived discrimination on mental health may therefore depend on several socio-cultural and contextual factors.

In fact, in moderation analyses, a significant interaction effect was noted for Cuban men compared to Mexican women on the relation between discrimination and psychological distress, such that being a Mexican female and perceiving discrimination was associated with greater levels of psychological distress compared to Cuban men with similar levels of perceived discrimination. These findings are somewhat consistent with the study findings of Finch and colleagues' (2000) and Ryff et al.'s (2003), that found that among Mexicans, gender moderated the relation between discrimination and psychological well-being, with discrimination compromising the mental health of Mexican women to a greater extent compared to that of Mexican men.

It is important to note however, that these findings do not suggest that it is something inherent about being a Mexican woman per se that is associated with greater

levels of psychological distress in the face of discrimination, but rather they seem to suggest that it may be what is associated with these social categories that influences the degree to which discrimination affects psychological distress. For example, research shows that Mexican women typically experience dual responsibilities and are exposed to concomitant stressors (Aranda et al., 2001). Likewise, poverty in the U.S. falls disproportionately on women, and where Latinas are concerned, Mexican women disproportionately carry this burden (Blau & Kahn, 2005). Certainly, the stress that typically results not just from perceiving discrimination, but also from chronic poverty and family and work conflict may be implicated in the mental health of Mexican women (Aranda et al., 2001). In fact, Belle and Doucet (2003) noted that poverty, inequality, and discrimination all endanger women's well-being, since chronic stress is more damaging to an individual than are episodic stressful events.

To the extent that Mexican women find themselves experiencing multiple and on going stressors that other Latinas and Cuban men in particular may experience to a lesser extent (or not at all), they are more likely to be adversely affected by discrimination. However, although gender-role related constructs and other types of stressors were not included in the present study, these explanations are only speculative. Nonetheless, these findings suggest both a subethnic and gendered mental health risk for Mexican women compared to Cuban men, and point toward the importance of considering how differences on the effects of discrimination may be more pronounced when comparing groups who differ along various dimensions (e.g., gender, social class, nationality, etc.).

At the same time, discrimination was strongly associated with psychological distress for all other Latino subgroups, a finding that corroborates with most other studies

examining the discrimination-mental health relation (Paradies, 2006). As mentioned previously, perceived discrimination seems to directly exert its effect primarily on psychological factors such as psychological distress. This may be so given that ambiguity is typically associated with experiences of perceived everyday discrimination, and in interracial interactions, attributional ambiguity manifests itself emotionally (see Mendes, et al., 2008 for a discussion on how attributional ambiguity shapes physiological and emotional responses to social rejection; Williams & Mohammed, 2009). Likewise, the stress literature notes that stressors that are persistent and chronic may affect health negatively more so than stressors that are episodic (Lepore, 1995). Therefore, to the extent that the ambiguity associated with perceived discrimination is manifested emotionally, and that everyday discrimination is frequent, these findings imply that these factors may partly account for the reason why perceived discrimination is associated with psychological distress.

Perceived discrimination is also a determinant of self-rated physical health, albeit a stronger predictor of mental health. In fact, results revealed that among the Latino subgroups, it was significantly associated with poorer health only among Cuban men and Cuban women. This suggests that the “economic cushioning” that most Cubans experience may not protect them from experiencing poor physical health. These findings partly corroborate with those of other studies that found the effects of race-related stress on health were stronger for middle-upper class than working class black men (Pieterse & Carter, 2007). At the same time, perhaps it is older Cuban men and women (who are more likely to have higher levels of education) that are most affected by perceived discrimination, given prior research with older Latinos finds that it is those with higher

levels of education and income that report more discrimination, and that even after adjusting for these demographic factors, perceived discrimination predicts medical conditions (Todorova et al., 2010). For the most part however, perceived discrimination was not associated with self-rated physical health, lending support to the hypothesis that perceived discrimination might come to affect physical health through other intermediary mechanisms (e.g., cardiac reactivity, neuroendocrine system; Harrell, 2000; Peters, 2006), and that it may be more closely associated with specific health outcomes as opposed to subjective health status (Todorova et al., 2010).

Nonetheless, these findings help us contextualize the paradoxical results noted for the total sample. That is, perceived discrimination was associated with better self-rated physical health. In this context, where Cubans have an older age composition (~20% and ~15% of Cuban women and men, respectively are 55 years or older) it indeed makes sense that age, gender, and subethnicity may all be influencing the results of the total sample. In fact, stratifying the sample by gender and subethnicity makes the discrimination-self-rated physical health association consistent with what we would expect based on the literature—perceived discrimination adversely influences self-rated physical health. Accordingly, not stratifying the sample by both gender and ethnicity, while adjusting for age when examining the discrimination-health relation, would possibly give us misleading findings. Consequently, these findings therefore imply that the intersections of gender, ethnicity, age, and class are important factors to consider in the context of discrimination experiences, and in establishing a connection between perceived discrimination and health.

In light of the limitations of this study (discussed in a later chapter), these findings draw attention to the diversity noted across groups on the impact that discrimination can have on different health outcomes. Indeed, what may appear to be a straightforward research question (i.e., how is perceived discrimination associated with health outcomes among Latinos?) is instead a starting point for beginning to understand how different histories, intersections of identities, and power and privilege associated with these identities among Latino subgroups shape exposure to discrimination and in turn, health outcomes. In fact, Vega and Rumbaut (2001) recommended that “research needs to move beyond the usual correlational analyses of reported symptoms and sociodemographic variables, to take social and historical contexts fully into account” (p. 379), in order to understand the heterogeneity in health profiles between and within ethnic groups.

### **Subjective Social Status and Health Outcomes Across Latina/o Subgroups**

Several explanations were provided earlier in this dissertation, including the sociocultural and historical context of each group that may contribute to different patterns in relationships among different subgroups in the study sample, as well as how and why the respective sociocultural context of each group might condition the hypothesized relationships. As such, it was expected that the different social and economic profiles of Latino groups would affect perceptions of social status in the U.S. and thereby condition health outcomes.

Findings revealed that higher levels of perceived social status in the U.S. were associated with decreased psychological distress for all Latino subgroups (i.e., Cuban men/women, Puerto Rican men/women, Mexican men/women) except among Other

Latino men and women. This association was non-significant for Other Latino men and women. For the most part, the significant association is consistent with the findings found for the total sample. Likewise, it corroborates with most of the literature on perceived social standing and mental health, where a perceived high social status is related to decreased levels of psychological distress and lower risk of mental illness (Alegría et al., 2007). Thus, to the extent that most Latino groups perceive their social status in the U.S. as being relatively high, their self-rated physical health will also be seen as “excellent/good/or fair”; therefore, possibly serving as a protective factor.

Important to note is that the perceived social status-psychological distress association was significant for all groups except Other Latino men and women after adjustment of sociodemographic factors. Thus, it may be that among those groups making up the Other Latino category, irrespective of gender, psychological distress does not hinge on a perceived social status, but instead, on other factors. For example, Fortuna, Porche, and Alegría (2008) found that among all immigrant Latinos (using the NLAAS), 11% reported exposure to political violence. The “Other Latino” category in the present study encompasses Dominicans, Central Americans and South Americans. It may be that at least for Central Americans (particularly Salvadorans and Nicaraguans) and some groups of South Americans (e.g., Colombians), many of whom have come to the U.S. to escape political oppression and have experienced political trauma (Portes & Rumbaut, 2001), their mental health status may be partially a function of pre-migration stressors and characteristics for which the present study did not account, as opposed to only a function of perceived social status in the U.S. or perceived discrimination. At the same time, it may be that perceived social status in the U.S. is a significant predictor of

psychological distress for South Americans (who for the most part have had more social capital, and therefore better adaptation than the other groups in the Other Latino category), but for whom this association might have been “washed out” given the inclusion of other Latinos comprising the “Other Latino” category.

On the other hand, perceived discrimination may be a more robust predictor of psychological distress than perceived social status for Dominicans, since Smith (2008) notes that “Dominicans experience the full measure of racial disadvantage usually reserved for Blacks in the United States, including concentration in the worst schools, geographic segregation, high levels of unemployment, and other problems” (p. 41). That is, perhaps for Dominicans, stressors related to chronic poverty, discrimination, and contextual factors may be better predictors of psychological well-being than their perceptions of social status (cf. Araújo-Dawson, 2009). Likewise, perceived social status may not influence health as much as crude measures of social status (e.g., income, education) for groups who already experience high levels of economic disadvantage (Ostrove et al., 2000). Given that Dominicans will soon surpass Cubans as the third largest Latino subgroup in the U.S., and are among one of the poorest Latino subgroups (Pantoja, 2005), future research examining the role of perceived social status on health outcomes should attempt to analyze this group separate from other Latinos.

An alternative explanation for these findings could be that it is perceived social status in one’s community and not in the U.S. that may have a significant association with psychological distress for the Other Latino subgroups, since these groups are likely to live in geographic contexts wherein they co-exist with other ethnic and racial groups and are not necessarily the majority group in those particular settings (e.g., Central

Americans in L.A.; South Americans in Miami). For example, according to the social psychological literature on stigma, people who perceive themselves as relatively deprived and discriminated against tend to compare themselves to individuals who are more similar to them, given that this type of comparison is actually less abstract and more informative (Crocker, Major, & Steele, 1998). As such, given the prevalence of Latino ethnic enclaves, the social context of immigrant contacts must be taken into account, particularly because social comparisons in co-ethnic communities may be more heightened as a function of varying levels of inequality and differences across racial and ethnic groups.

Moreover, results indicated that a higher perceived social status in the U.S. was associated with better self-rated physical health among Cuban men, Cuban women, Puerto Rican men, and Mexican women. This association was non-significant among Mexican men, Puerto Rican women, and Other Latino men and Latino women. The significant findings are in line with those of the total sample as well as those including psychological distress as the outcome. At the same time, these results imply that irrespective of gender, among Cubans, perceived social status is a particularly salient factor for understanding their health status. Indeed, these findings seem to suggest that at least among Cubans, most of whom do not necessarily experience the extent of economic marginality that Puerto Ricans and Mexicans experience, perceived (not actual) social status might be more central to self-rated physical health, as they already have high levels of overall income. For example, Ostrove et al. (2000) suggested that for groups who live in poverty, increases in income as opposed to perceptions of one's social status become relatively more important predictors of health. In this context, increases in income might

not influence Cuban's perception of physical health as much as their own perceptions of social status might, since they already exhibit higher levels of SES.

Interestingly however, results indicated that for Mexicans and Puerto Ricans, perceived social status in the U.S. operates differently for men and women's perceived physical health. At least for these two Latino subgroups, such differences might reflect gender differences in the meaning attached to perceived social status. For example, it may be that for Puerto Rican men, perceiving themselves as occupying a higher social status in the U.S. may be partly attributed to their gender status and beliefs about masculinity. Williams (2003) noted that given men are more often judged on the basis of their occupational status, it is more likely that economic marginalization can have detrimental health consequences. Indeed, to understand how gender is associated with health, an analysis of labor as inextricably bound up with men and women's status cannot be ignored. For example, Torres (1998) suggests that among Puerto Rican men, changes in socioeconomic and labor market conditions in the U.S. have resulted in conflict associated with marital relationships and gender role characteristics (i.e., not being able to retain traditional ideals of masculinity). Both Perez-Jimenez et al.'s (2007) and Ramirez et al.'s (2002) studies with Puerto Rican males showed that participants endorsed hegemonic masculinity traits, such as believing that men should be the economic providers; and that when this does not occur, men begin to think less of themselves.

However, to the extent that Puerto Rican men feel pressure to uphold a high social status and avoid being construed as weak or less masculine given their high rates of unemployment and low socioeconomic status, it may be that bolstering their social

standing in the U.S. (irrespective of actual SES) in the presence of economic marginalization helps protect them from the negative health consequences associated with perceiving oneself in a lower status. Consequently, for Puerto Rican men, perceptions of a high social status may serve as a coping mechanism in the face of social and economic marginality. These findings allude to the importance of understanding Puerto Rican men's sociopolitical and cultural context and how it is reflected in their subjective social status.

On the other hand, for Puerto Rican women, who might not have to live up to gendered expectations linked to economic status to the extent that their male counterparts do, other indicators of social standing (i.e., marital status) may be more predictive of self-rated physical health. Likewise, it could be that stressors related to gender roles for women (i.e., caretaking, family, issues of sexuality) are more closely associated with self-rated physical health. Although this study did not account for these factors, the findings for Puerto Ricans have implications for understanding how gendered expectations and beliefs may come to influence perceived social status and physical health. Indeed, it seems that the mutually constitutive features of ethnic and gender status create unique strains that must be understood simultaneously (Crenshaw, 1993; Hondagneu-Sotelo, 1999) in order to better understand the health status of Puerto Rican men and women.

Interestingly, the reverse was noted for Mexican women and men. That is, perceived social status was associated with self-rated physical health for Mexican women but not for Mexican men. These findings are partly supported by previous findings in the literature that show that among Mexicans, perceived social status becomes non-significant after adjusting for objective indicators of SES (Franzini & Fernandez-Esquer,

2006). Thus, the results for Mexican men are consistent with these findings. However, the findings for Mexican women might indicate that for this group of women, differences prompted by gendered patterns in migration and labor demand might interject new ideals of status for Mexican women (Hondagneu-Sotelo, 1999). For example, for this group of women—many of who are immigrants, shifts in markers of social class (i.e., shifts in gender roles, access to resources, occupational roles) after migration might shape the way in which they currently see their social status in the U.S. (Mahalingam & Leu, 2005). Indeed, for these women, an upward shift in class status as well as new gender configurations (e.g., gender role reversal) may reflect perceptions of higher status in the U.S. (Pessar, 1999).

At the same time, Mahalingam and Haritatos (2006) noted that for immigrant women from honor cultures—where there are high expectations of chastity given women are seen as “bearers of culture,” particularly in a society where their sexuality is racialized, women essentialize gender more often. For example, immigrant women will emphasize their moral superiority in contrast to that of White women, as depicted in Espiritu’s (2001) study, wherein Asian immigrant women contended, “we don’t sleep around like White girls do.” In this context, for Mexican women, who have been depicted as “bad mothers” and sexualized beings, it may be that perceiving themselves as holding a higher social status in the U.S. (in comparison to White women for example) might protect them from negative health consequences (cf. Mahalingam & Haritatos, 2006). On the other hand, cultural norms and idealized beliefs about gender might not be associated with Mexican male’s physical health. Given that neither family-contextual or gender role/expectation measures were included in the present analyses, these interpretations are

only speculative. Indeed, to understand the statistical association of “gender” and/or “ethnic” effects on health requires inclusion of constructs that are intertwined with these social categories. Likewise, perhaps these different patterns noted among Mexican women and men might also reflect differences in coping with discriminatory experiences at the intersections of ethnicity, class, and gender. A logical next step would be to stratify the sample by nativity or years in the U.S. and examine how multiple intersections of gender and immigration, including the transnational context, influences their perceptions of status in the U.S. relative to that of their “home” country (Mahalingam, Balan, & Molina, 2009).

The non-significant findings for the Other Latino groups (men and women) are consistent with those found for the social status-mental health relation. Thus, at least among the Other Latino subgroups, these findings suggest that perceived social status in the U.S. may not be a robust predictor of health outcomes, particularly considering the vast heterogeneity of this group. Instead, other dimensions of social status may be more influential on self-rated physical health (Franzini & Fernandez-Esquer, 2004; Read & Gorman, 2006). It is also plausible that perceived social status in the U.S. is a better predictor of specific physical health outcomes than of global self-rated physical health (Ostrove et al., 2000). Indeed, the heterogeneity in the social, economic, and political contexts of the Other Latino group makes their particular findings much more difficult to interpret. Without a doubt, more research is clearly needed to disentangle the complex relationships that exist for the different groups within the Other Latino category.

Nonetheless, the present findings provide ample evidence and insight as to the differential effects that perceived social position has on different health outcomes at the

intersection of gender and ethnicity. In light of such findings, examining how various intersections of identity and status associated with them in the immigrant context affect the process by which perceived social status comes to affect Latinos' mental and physical health proves to be a fruitful avenue for future research.

### **Psychological Distress and Self-Rated Physical Health Across Latina/o Subgroups**

Surprisingly, although prior research has found that Puerto Ricans in general report higher levels of somatization than other subgroups (Canino et al., 1992) and that Puerto Ricans report the highest levels of psychological distress when compared to other Latino subgroups (Rivera et al., 2007), the association between psychological distress and self-rated physical health is similar across all Latino subgroups in this sample. That is, psychological distress was associated with poorer self-rated physical health across all eight subgroups. Thus, although differences in mean levels of psychological distress are noted across subgroups, no differences across subgroups are noted in the association between psychological distress and health. In fact, these findings suggest that at least among Latinos, psychological distress may be a critical mechanism by which chronic health conditions develop. This suggestion is in line with Todorova and colleague's (2010) study that found psychological distress was associated with a number of health conditions among Latinos. Likewise, psychological distress, through its influence on physical health, may help us understand health disparities among Latinos. Importantly, these findings suggest that similarities noted across Latinos should also not go unnoticed when trying to understand health outcomes and disparities. Indeed, Cole (2009) noted

that intersectional analytic approaches should also consider similarities on different domains and psychosocial outcomes between groups, and not just dissimilarities.

## CHAPTER VII

### LIMITATIONS AND FUTURE DIRECTIONS

Despite the unique contributions that the present study makes to the literature, there are limitations to it. First, consistent with most other studies in this area of research is the cross-sectional nature of the data. Inferences cannot be made in terms of temporal ordering of the variables in the tested model. For example, it may be that the order of the relationships tested in the model are in fact reversed—that is, that subjective social status influences the degree to which a person reports experiencing discrimination, or that physical health leads to psychological distress. Moreover, given the tested model was a cross-sectional recursive model (where only unidirectional effects are allowed), reciprocal causation or directionality cannot be ascertained (Cortina, 2005). It may be that psychological or physical well-being also influence the extent to which persons perceive discrimination and their social status in the U.S. Although there is some longitudinal research to suggest that the ordering of these variables (particularly that from discrimination and subjective social status to health outcomes) follow the pattern in which they were tested in the model (Pavalko et al., 2003; Schulz et al., 2006; Singh-Manoux et al., 2005), these alternative hypotheses cannot be completely ruled out. The present findings are most useful for generating hypotheses regarding *possible* indirect pathways by which discrimination influences the health of Latina/os. To this end, Cortina (2005) notes, “fully recursive models are most useful in the context of exploratory data

analysis, but they are suboptimal for testing of theoretically derived predictions” (p.1722). Clearly, longitudinal studies (or at least nonrecursive models) are needed to further explicate and establish the causal direction of these relationships, specifically among Latina/o populations.

The pathways that connect everyday discrimination to health are probably more complex than what the present study has described. Indeed, various scholars have suggested many other possible ways by which discrimination may affect health. However, the challenge in including other variables that are believed to potentially play a significant role in the relation between discrimination and health lies in model identification<sup>34</sup> (e.g., running into “underidentification,” where there are more parameters to be estimated than is possible given few number of data points; Tabachnick & Fidell, 2007), or losing predictive power. Indeed, there could have been some unmeasured third variable that might partly account for the associations found in the study. For example, it is recognized that biological mechanisms play a significant role in how ethnic-related stressors (e.g., discrimination) influence health (Harrell, 2000; Myers, 2009; Williams et al., 1994), yet inclusion of biological markers in the model was not possible given the data did not lend itself to it. One challenge of conducting secondary data analysis is not being able to include all of the measures one believes are relevant in the model because of what is available in the data set. However, inclusion of variables in the tested model was based on theory and empirical evidence suggesting this set of variables best “belonged” in the model (i.e., they made substantive sense). Nonetheless, replication of other plausible theoretically driven models is needed.

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<sup>34</sup> Model identification in path models without latent variables is completely dependent on the system of equations that one is trying to solve, as opposed to models using SEM that include latent variables where both parts of the model (i.e., measurement and structural parts) need to be identified (Bollen, 1989).

Additionally, future studies should aim to include resilience and protective resources (e.g., coping mechanisms) that may either mediate or moderate the relation between discrimination and health. Indeed, according to the Basic Behavioral Science Task Force of the National Advisory Mental Health Council (1996), “understanding the psychological processes that mediate and sustain...self-protective behaviors among people victimized by prejudice and discrimination in our society need to be a high research priority” (p. 725). In fact, various scholars have noted that individuals are active agents who may employ a number of ways in which to cope with discrimination (Crocker & Major, 1989). Indeed, numerous studies have shown that in response to perceived discrimination—ethnic minorities assert their ethnic pride or strengthen their ethnic identity as a way of coping with discriminatory experiences and stigma (Branscombe et al., 1999; Portes & Rumbaut, 2001). For example, in a comparative study of Asian, African American, and Latino students, Operario and Fiske (2001) found that an increased vulnerability to experiences of racial and ethnic discrimination was associated with strongly identifying with one’s ethnic group. Likewise, it has been suggested that when confronted with stressful conditions and situations, social resources may be drawn upon to cope with the stimuli (Thoits, 1995). Social networks such as family and friends—serve important functions such as expressive or instrumental needs to those drawing upon them (Ensel & Lin, 1991). These resources may help individuals maintain psychological and social equilibrium in the face of distress, thereby reducing the risk of illness (Berkman, 1984; Ensel & Lin, 1991). At the same time, conceptual and empirical research notes that social stressors may reduce or disrupt reserve resources for coping (Hobfoll, 2001; Jackson et al., 1998; Myers, 2009). Provided that Latina/os are the largest

ethnic minority population in the U.S. and are a group who faces discrimination and other forms of marginality disproportionately; from both a public health and public policy perspective, it becomes critical to understand how individual difference and contextual factors may either yield targets of discrimination from its deleterious effects on health, or deplete their resources for coping.

Importantly, although gender and ethnicity were included as moderators, these social categories can only serve as “proxies” for actual gender and ethnic-specific constructs that may actually influence the relations in the model. As such, variables such as gender roles and social networks may be included as moderators in order to tap into what might really be accounting for some of the moderating effects that were observed.

Moreover, despite the high internal consistency of the study measures, there is still measurement error in the observed variables that was not taken into account. Since path analysis does not account for this (as it assumes that variables are measured with no error), future studies could include conducting SEM, which does take into account measurement error of the underlying construct (i.e., by accounting for unreliability in the indicators of manifest variables; Bollen, 1989; Hom & Griggeth, 1991). Further, it is important to also consider objective measures rather than relying solely on self-reported measures. In such a circumstance, this could include objective measures of mental health (e.g., DSM-IV psychiatric disorders) and physical health (e.g., health records of history of physical health diagnoses). In fact, as noted earlier, Todorova et al. (2010) found that perceived racial/ethnic discrimination was not associated with self-rated physical health, but instead, was associated with medical conditions. Nonetheless, all the measures

included in the study have been widely used and validated in the health literature (Adler et al., 2000; Idler & Benyamini, 1997; Kessler et al., 2002; Williams et al., 1997).

Likewise, although the internal consistency of the everyday discrimination across the subethnic groups and by language of interview in the NLAAS has been reported elsewhere (Alegria et al., 2004b)<sup>35</sup>, cross-cultural validity of the everyday discrimination scale has not been established across different Latina/o subpopulations. Heterogeneity in exposure or in interpretations of discrimination experiences may lead to variation in reported prevalence of perceived discrimination across subgroups (Shariff-Marco et al., 2010). Importantly, some of the participants in the study were interviewed in Spanish, which perhaps led some subgroups (e.g., Cubans) to interpret, and thereby make sense of and respond to items differently compared to those responding to the interview in English (e.g., Puerto Ricans)<sup>36</sup>. Indeed, Alegria et al. (2004b) note the importance of paying attention to cognitive abstraction processes, including, but not limited to “semantic, content, and equivalence [of] the construct” being measured across subgroups (p. 285). Also, Shariff-Marco and colleagues (2009) note that the experience of discrimination might not be qualitatively equivalent across different language groups. Thus, a fruitful avenue for research on discrimination and its impact on health includes conducting psychometric analysis (e.g., CFA MIMIC model, IRT-based DIF testing) to examine the validity, reliability, and comparability of this measure across different Latina/o subgroups

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<sup>35</sup> Chronbach’s alphas for Perceived Everyday Discrimination were .78, .83, .79, and .78 for Puerto Ricans, Cubans, Mexicans, and Other Latina/os, respectively. Chronbach’s alpha by language of interview was .79 and .80 for English and Spanish interview respondents, respectively.

<sup>36</sup> Guarnaccia et al. (2007), in their study assessing diversity among NLAAS respondents, reported that Cubans, followed by Mexicans, were the two groups most likely to prefer to be interviewed in Spanish, whereas Puerto Ricans more often preferred to be interviewed in English. Likewise, the findings of this study noted that Cubans were the most Spanish proficient, whereas Puerto Ricans were the most English proficient.

and across English and Spanish-speaking respondents (see Alegría et al., 2004b for a detailed discussion of cultural relevance and equivalence of instruments for use with different Latina/o subgroups and by language of interview). Although it is possible to assess these issues using the NLAAS, it was beyond the scope of this study to assess psychometric properties including validity across demographic variables (e.g., gender, language of interview, subethnicity) on the everyday discrimination scale, or any other scale in the present study for that matter.

At the same time, measures that do tap into discrimination among Latina/os have been constructed to target the experiences of specific groups (e.g., gay Latina/o men; Diaz et al., 2001), rather than the discrimination construct for use with all Latina/os. Measures that have been developed to tap into the African American experience are typically used for other people of color. These scales may underestimate the experiences of groups comprised of immigrants (e.g., Latina/os, Asian Americans), since these measures of discrimination do not fully capture the range of social experiences that these groups face. For example, they do not typically measure immigration-related experiences, including language isolation, discrimination because of accent, as well as citizenship-based experiences. Measures that do tap into these particular experiences have mostly been assessed among foreign-born Latina/os or through acculturation and acculturative-stress measures (e.g., Hispanic Stress Inventory; Cervantes et al., 1990)<sup>37</sup>. Likewise, most measures of discrimination do not assess the gendered nature of the discrimination experience. For example, various dimensions have been noted for the ways in which

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<sup>37</sup> The NLAAS included an acculturative stress measure that assessed discriminatory behavior related to immigration-based issues, but were only asked among foreign-born respondents. Although non-immigrants could have technically been given a value of “0” in the acculturative stress measure, this would likely change the estimate of the effect of acculturative stress for foreign-born persons (i.e., immigrants).

Latina/o men and women are perceived (Torres et al., 2002), with Latina/o males perceived as aggressive, dishonest, lazy, and oversexualized; and Latinas as sexually aggressive, hot-tempered, and welfare dependent (Brooks, 2010; Mastro & Behm-Morawitz, 2005).

Possible items for inclusion in a discrimination scale for Latina/os could include assessing gendered dimensions of discrimination, such as asking about the extent to which participants have felt their children are treated differently at school or the frequency of respondents being thought of as “bad parents.” In their study of African American women, Jackson, Hogue, and Phillips (2005, p.596) included items such as “*African American youth are more likely than other youth to encounter negative experience with law enforcement*” in order to capture racist encounters associated with nurturing/caretaker roles; and items such as “*There is little possibility of my advancing to the top position in my job*” to measure the perceptions and experiences of both racial and gendered oppression in the work place. Thus, differential treatment and depictions of Latina/os and Latinas in different contexts may have noteworthy implications for the study of discrimination and health outcomes. Accordingly, using scales targeted at the multidimensional experience of discrimination among Latina/os can allow the possibility of arriving at more accurate estimates of prevalence rates of discrimination among Latina/os in general and across subpopulations<sup>38</sup>.

Qualitative studies provide a unique methodological avenue for this area of research, given that studies that seek to understand the phenomenological experiences of

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<sup>38</sup> Krieger (2000) also recommends the use of discrimination measures that are more specific (e.g., racial/ethnic discrimination), given questions that are global in nature are more likely to underestimate levels of exposure to discrimination, and in turn, reporting of discriminatory incidents.

discrimination as a vehicle for understanding how different groups of Latina/os conceptualize and make of such experiences remain absent from the literature. Indeed, qualitative approaches are able to capture the experiential depth that survey methods are less able to do, given they can provide information about an individual's contextual, real-life, everyday experiences (Lincoln & Guba, 1985). Social identities intersect to create qualitative different experiences for individuals; therefore, incorporating qualitative methods may aid us in understanding the contours of discrimination experiences.

Further, despite assessing attributions to discriminatory experiences, a limitation was not allowing participants to provide multiple reasons for why they believed they were discriminated, or examining the extent to which attributions affected health. That is, participants could only attribute discriminatory experiences to one main reason (e.g., race, ethnicity, skin color, or gender). It may be that attributions of discrimination may influence the effect of it on health outcomes. That is, the effect of self-reported discrimination on health can vary depending on the context in which these experiences occur (National Research Council, 2004); for example, whether discrimination was perceived as racially targeted, gendered, class-based, or the combination of any of these and other domains.

In fact, one of the major methodological challenges in discrimination research has been how to separate the unique contributions of gender and ethnicity in experiencing discrimination, for example. One could argue that gender and racial discrimination may not be necessarily that easily separated from each other. For instance, Essed (1991), in referring to Black women, coined the term “gendered racism” to describe how sexism and racism “narrowly intertwine and combine under certain conditions into one, hybrid

phenomenon” (p. 31). That is, gendered racism takes into account the simultaneous intersections of race/ethnicity and gender in the experience of oppression. For example, Amaro (2005) found that among a diverse group of women, of those who reported experiencing discrimination, 43% experienced up to two different types of discrimination, 29% reported two to four types, and 28% experienced five or more different types of discrimination. Certainly, in the real world, individuals do not experience discrimination in a singular form. Thus, as Thomas and colleagues noted, “because individuals are multidimensional, possessing various social identities, gendered racism provides the opportunity for a more complex understanding of experiences with oppression” and that “the notion of gendered racism applies to men and women of all racial/ethnic minority groups” (p. 307).

Overall, the present study findings and limitations regarding the measurement of discrimination suggest that a mixed-methods approach to measuring discrimination may facilitate our understanding of the discrimination experience among Latina/os. These suggestions are consistent with a recent study (Shariff-Marco et al., 2009) that puts forward the use of a mixed-methods approach as a “best practice” method for the development of a self-reported racial/ethnic discrimination measure. Significantly, the authors of this study argue that measures of discrimination in health research should capture four distinct dimensions, including:

frequency of encounters with discrimination across a number of domains [e.g., medical care, school, work, stress, other public places, police, and courts]; 2) timing of exposure [e.g., recent, lifetime]; 3) appraisal of discrimination as stressful; and 4) responses to discrimination (p. 449).

Research in these areas is beginning to accrue, and promises to lay the foundation for the

use of multidimensional measures of perceived discrimination in health research across different racial and ethnic groups, including Latina/os (Reeve et al., in press; Sims et al., 2009).

Significantly, there has been an outburst of anti-immigrant (i.e., anti-Latina/o sentiments), which has infused almost every aspect of our society today. Although this study stratified the sample by gender and subethnicity, it did not examine the extent to which generational status or nativity affected the results. Comparing the process by which discrimination affects health between immigrant and non-immigrant Latina/o men and women is equally important, particularly for understanding the so-called “immigrant paradox.” For example, since Latina/o immigrants are less likely to report discrimination than are US-born persons (irrespective of ethnicity or gender; Perez et al., 2008), and immigrants are more likely to have lower levels of education and income than their US-born counterparts, examining the extent to which perceived discrimination influences internalization of a perceived lower social status in the U.S. and its relation to health outcomes between these two groups becomes critical.

It is very plausible that immigrant men and women (especially recently arrived immigrants) may not be as negatively affected by discrimination compared to US-born Latina/os or Latina/o immigrants who have resided in the U.S. for a longer time, given they typically are less likely to report discrimination if they reside in ethnic enclaves that help protect them from an awareness of racial hostility (Viruell-Fuentes, 2007). Second, differential effects may be noted in how subjective social status influences health among immigrants and non-immigrants. Studies including Asian immigrants have found that subjective social status was associated with health only among immigrants arriving when

they were 25 years and older, but not for those arriving before the age of 25 (Leu et al., 2008). Lastly, Spanish-speaking Latina/os have been found to report worse self-rated health than their English-speaking counterparts (DuBard & Gizlice, 2008), and self-rated health has been found to be predictive of mortality among Latina/os in general, but not among Latina/os with low levels of acculturation (Finch et al., 2002). Thus, in so far that Latina/o immigrants account for the largest subgroup of foreign-born persons in the U.S., examining how acculturation-related factors (e.g., nativity, generational status, language status) influence reports of both discrimination and social status, and in turn health outcomes, is timely and a significant area of research for further understanding the heterogeneity noted in health profiles across Latina/o subgroups.

Importantly, although the theoretical framework used in the study highlights the importance of considering multiple identities, and that I considered the intertwining effects of gender and ethnicity, I did not consider objective social class as a central focus in this study. That is, I controlled for social-class related constructs (e.g., income, work status) and included subjective social status as a main variable in the path model, though I did not assess the extent to which social class interacted with gender and ethnicity to account for the relationships in the model. Indeed, most of the research on intersectionality has focused on the intersections of gender and ethnicity, though less attention has been paid to the critical role that social class has on the lives of Latina/os at the intersections of other social categories. For example, Puerto Rican women represent a large and increasing proportion of families headed by women and thus remain at the lower strata of the working class more so than other group of Latinas (Colón-Warren, 1994). In this case, to examine gender, class, or ethnicity as isolated categories would

obscure the role any one of these social categories may have on perceptions of social experiences and health outcomes. Likewise, Puerto Rican and Mexican men are two of the most economically disadvantaged groups of men. Thereby, a more complete intersectional analysis among Latina/os would aim to incorporate the intertwining effects of not only gender and ethnicity, but also social class (cf. Jackson & Williams, 2006; Schulz & Mullings, 2006).

Moreover, the extent to which the tested model would hold across other ethnic and racial groups is not known. It is therefore recommended that caution be taken regarding the generalizability of the present findings to other racial and ethnic groups. Future studies should examine for whom and how these mechanisms come to affect health. Given that the data set used for the present study also includes nationally representative samples of Asian subgroups, a next step could be to test whether this model holds for Asian Americans, and if the patterns of relations between discrimination and all other variables noted for Latina/os are similar to that of Asian Americans. For example, given Asian Americans' general higher socioeconomic and educational levels compared to that of Latina/os' (Alegría et al., 2006; U.S. Census, 2007), as well as the sociocultural pressures faced by Asian Americans to have to live up to the "model minority" ideal (Mahalingam, 2006), it may be that subjective social status in the U.S. may be a more salient mechanism in this causal pathway for Asian Americans. Indeed, this is plausible, since prior research has found that for Chinese women, but not for Latinas, subjective social status was predictive of self-rated health (Ostrove et al., 2000). Comparative research, in this case, presents the opportunity to attend to differences as well as similarities between ethnic groups partly comprised of immigrants.

Finally, the present study used an aggregate of “Other Latina/os,” which limits our ability to draw inferences about any one group included in this category. Although the ideal situation would be to disaggregate this group and be able to compare them to Cubans, Puerto Ricans, and Mexicans, lack of large sample sizes for each of those groups in the Other Latina/o category prevents us from doing so. Structural equation modeling/path analysis usually requires a large sample size (e.g., 200 and over); therefore, the “Other Latina/o” category could not be broken down to specific Latina/o subethnic groups. At the same time, not including “Other Latina/os” as a comparison group in some of the targeted moderation analyses limited the ability to draw any conclusions about this group. It may have been that there were significant moderating effects that are unknown given this group was omitted from specific comparisons when examining the strength of relations. Nonetheless, the findings that were available from the Other Latina/o category in this study provide useful information about groups in this category.

Clearly much remains to be done in the years ahead, and there exist many potential fruitful avenues for future research that examines discrimination and its effects on health among Latina/os. Given that Latina/os are the largest ethnic minority population in the U.S., and that their numbers are expected to grow at an even faster rate, research on this group undoubtedly merits further study.

## **CHAPTER VIII**

### **CONCLUSION**

The three main objectives of this study were to examine exposure to different forms of social marginality, to examine the multiple ways in which they contribute to adverse health outcomes among Latina/os, and to examine the extent to which multiple, interlocking identities (e.g., gender and ethnicity) shape the experience of social marginality, and consequently, health. My study contributes to the sparse literature on the association between discrimination, social status, and health among Latina/o subpopulations.

In line with the intersectional framework, exposure to everyday discrimination and subjective social status in the U.S. differed significantly across the eight Latina/o subpopulations in the sample. That is, gender and ethnicity interactively influenced the extent to which respondents reported everyday discrimination and viewed their social status in the U.S. Taken as a whole, these findings provide a basis for questioning the assumption that reports of experiencing different forms of social marginality are uniform among all Latina/o groups. Further, these particular findings make important contributions to the literatures on everyday discrimination and subjective social status by examining these constructs among Latina/os using a unique perspective that takes into account the role of social location.

Overall, this study also provides important preliminary evidence of the multiple pathways that exist for the relationship between perceived discrimination to

psychological and physical well-being. Consistent with social stress theory, the findings from this study demonstrate that perceived discrimination, as a form of chronic stress, is directly associated with higher levels of psychological distress, even after adjusting for sociodemographic factors. Indeed, these findings highlight the central role that psychological distress seems to play in the relation between discrimination and physical health for Latina/os as one group, irrespective of sociocultural differences noted across the groups. Findings also showed that self-reported everyday discrimination is indirectly associated with poor self-rated physical health through a perceived low social status in the U.S. and through psychological distress. These results make a unique contribution to the health literature by examining how discrimination relates to subjective social status, not just health outcomes. Indeed, the results also showed for whom internalization of discrimination might be most detrimental. These findings shed light on the ways in which reports of discrimination may contribute to internalization of unfair treatment (via perceptions of social status), as well as mental and physical health outcomes among Latina/os, despite the relatively low levels of discrimination reported among the study respondents. Importantly, the results underscore that by empirically testing a theoretically driven model that simultaneously considers multiple risk factors, we can begin to better understand the complex ways in which different mechanisms work in tandem to influence the health of Latina/os.

Many scholars have noted the importance of taking into account how different relations are patterned across different Latina/o groups (Koss-Chioino, 1999). My study found that connections among everyday discrimination, subjective social status, psychological distress, and self-rated physical health across subgroups are both similar

and varied. On the one hand, across most Latina/o subgroups in the study, everyday discrimination was associated with greater levels of psychological distress, which in turn was associated with poor self-rated physical health. On the other hand, differences across subgroups were noted in the indirect path from everyday discrimination to self-rated physical health with subjective social status as a mediator of this relation. That is, everyday discrimination was associated with a perceived lower social status in the U.S., and in turn, poor self-rated physical health among Puerto Rican men, but not among any other Latina/o subpopulation. At the same time, the effects of discrimination on subjective social status on Puerto Rican women, and on psychological distress for Mexican women compared to Cuban men. Importantly, post-hoc analyses revealed that the fit of the tested model wherein Cuban women were held to be the same as all other Latino groups did not fit the data well, raising further questions about the extent to which gender and ethnicity influence relations in the model.

Taken together, these findings underscore the importance of taking into account how direct and indirect relations linking everyday discrimination to self-rated physical health are patterned across different Latina/o groups at the intersection of multiple social identities. In many ways too, these findings call attention to within-group comparative research in order to better understand the process by which discrimination affects health across Latina/os. Significantly, these findings have implications for identifying general pathways as well as for understanding within-group specific processes (cf. Alegria, Woo, Takeuchi et al., 2009).

Research on the health consequences of perceiving discrimination across racial and ethnic minority groups has grown profoundly in the last two decades. Given that in

the coming years the number of Latina/os in the U.S. is expected to continue to grow geometrically, we need to understand how embodiment of negative social experiences contribute to the existence and maintenance of health disparities noted among this group. Further, given the diverse demographic profile of Latina/os, in this context, one challenge facing researchers will be to move toward understanding how axes of privilege and axes of marginalization synergistically determine common as well as differential patterns in health profiles.

Importantly, my study findings have implications for challenging homogeneity in health outcomes and processes among Latina/os. Theoretical and empirical advances on the ways in which intersectionalized identities structure the discrimination-health relation will hopefully provide greater insight as to which social groups seem to be most at risk when they feel discriminated against or when they come to believe they occupy a lower social status in the U.S. Although this study is only a first step in exploring the psychosocial risk factors that contribute to health status among a diverse group of Latina/os, it underscores the importance of contextualizing findings within a larger sociocultural context, and brings us one step closer in understanding how differential exposure to forms of social marginality contribute to distinctive health profiles among Latina/os in the U.S. Thus, rather than viewing this work as definitive, I argue that these paths may possibly approximate Latina/os' experiences of social marginality.

Finally, Myers (1998) notes, “the ultimate goal of this research [i.e., research on stress and health] is not just to explain group differences in relative health status and risks for dysfunctional health outcomes, but also to reduce, if not eradicate such differences” (p. 11). The present study findings indicated that the experience of discrimination could

have negative health costs, but that the effects noted are moderated by both gender and ethnicity and mediated by psychological factors. Thus, only after developing a deeper understanding of the unique aspects of Latina/os' experiences of social marginality and its influence on health can researchers apply this type of inquiry to developing and testing interventions that can contribute to optimal health outcomes (Myers, 1998). Accordingly, attending to the complexity of the "Latina/o" experience in the U.S. and its relation to health clearly remains an area ripe for scientific study. Indeed, not taking the diversity found across Latina/o subpopulations carries the risk that "areas of greatest need may also be obscured by inappropriate aggregations" (Novello et al., 1992, p. 253). Without a doubt, it is no longer makes sense to treat Latina/os as one homogeneous group (Guarnaccia et al., 2007), and thus, a great need for research that accounts for the high degree of heterogeneity found across Latina/o subpopulations is needed.

Collectively, the results from this study provide some direction for understanding Latino health and about where we have been and where we should move regarding research on the relation between discrimination, social status, and health among Latino populations in the U.S. Importantly, the findings also demonstrate that considering ethnicity and gender at the same time helped elucidate how certain relationships work, and provided information that may have not been captured otherwise.

## APPENDIX A

### Everyday Discrimination/Unfair Treatment

In your day-to-day life how often have any of the following things happened to you?  
 (Would you say *almost everyday, at least once a week, a few times a month, a few times a year, less than once a year, never?*)

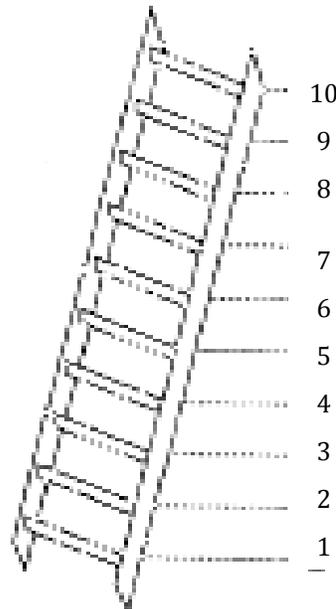
	Never (6)	Less than once a year (5)	A few times a year (4)	A few times a month (3)	At least once a week (2)	Almost everyday (1)
1. You are treated with less courtesy than other people.	1	2	3	4	5	6
2. You are treated with less respect than other people.	1	2	3	4	5	6
3. You receive poorer services than other people at restaurants or stores.	1	2	3	4	5	6
4. People act as if they think you are not smart.	1	2	3	4	5	6
5. People act as if they are afraid of you.	1	2	3	4	5	6
6. People act as if they think you are dishonest.	1	2	3	4	5	6
7. People act as if you are not good as they are.	1	2	3	4	5	6
8. You are called names or insulted.	1	2	3	4	5	6
9. You are threatened or harassed.	1	2	3	4	5	6

## APPENDIX B

### Subjective Social Standing in the United States

Think of this ladder as representing where people stand in the United States. At the top of the ladder are the people who are the best off - those who have the most money, the most education and the most respected jobs. At the bottom are the people who are the worst off - who have the least money, least education, and the least respected jobs or no job. The higher up you are on the ladder, the closer you are to the people at the very top; the lower you are, the closer you are to the people at the very bottom.

(a) What is the number to the right of the rung where you think you stand at this time in your life, relative to other people in the United States?



## APPENDIX C

### Kessler Psychological Distress Scale (K-10)

*During the last 30 days, how often did you feel:*

	All of the time (1)	Most of the time (2)	Some of the time (3)	A little of the time (4)	None of the time (5)
1. Depressed?	1	2	3	4	5
2. So depressed nothing could cheer you up?	1	2	3	4	5
3. Feel hopeless?	1	2	3	4	5
4. Restless/fidgety?	1	2	3	4	5
5. So restless couldn't sit still?	1	2	3	4	5
6. Tired for no reason?	1	2	3	4	5
7. Everything was an effort?	1	2	3	4	5
8. Feel worthless?	1	2	3	4	5
9. Nervous?	1	2	3	4	5
10. So nervous nothing could calm you?	1	2	3	4	5

## APPENDIX D

### Self-Rated Physical Health

1. How would you rate your overall physical health – excellent, very good, good, fair, or poor?

EXCELLENT.....	1
VERY GOOD.....	2
GOOD.....	3
FAIR.....	4
POOR.....	5
DON'T KNOW.....	8
REFUSED.....	9

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