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ASIAN IMMIGRANTS' PSYCHOLOGICAL WELL-BEING: THE INTERPLAY OF
PERCEIVED RACIAL DISCRIMINATION, GROUP MEMBERSHIP, AND COPING
STRATEGIES

BY

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DISSERTATION

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ABSTRACT

The purpose of this research aims to explore the effects of perceived racial discrimination on Asian immigrants' psychological well-being. It investigates the moderating effects of immigrants' group membership and coping factors. The main research hypotheses and exploratory research questions include the following: 1) Does perceived discrimination affect Asian immigrants' psychological well-being (i.e., psychological stress and overall mental health)?) Do coping and group membership variables (i.e., racial/ethnic identity, social support, immigrants' generational status, ethnic subgroup, and age) bear moderating effects on the associations? This study hypothesizes that despite experiencing a higher rate of perceived discrimination, those with coping strategies and protective group membership—such as being a first generation immigrant or belonging to an ethnic subgroup with overall higher socioeconomic Status—experience less negative impact on their psychological well-being.

This study utilized the National Latino and Asian American Study (NLAAS) dataset, which is a nationally representative study with strong quality measures relevant for the variables proposed. All Asian immigrants in the dataset (n=2,095) were included, and the results may be generalized to approximately 6,040,000 Asian immigrant adult populations in the United States. This research involved weighing step-wise hierarchical multiple regression to examine the main effect of perceived racial discrimination on two psychological well-being outcomes. Lastly, by using interaction terms in the final regression models, this study investigated the moderating effects of two coping and three group membership variables. All analysis was conducted by using STATA 13.0 S.E.

The results revealed significant detrimental effects of perceived racial discrimination on Asian immigrants' psychological well-being. Experiencing a higher rate of perceived racial

discrimination was negatively associated with Asian immigrants' self-rated mental health (OR= .690, $p \leq .05$; 95% CI [-.701- -.041]) and existing in a highly psychologically distressed state (B= -.668, $p \leq .01$; 95% CI [-1.071– -.265]). For moderating variables, having a higher level of social support was significantly associated with a better psychological well-being outcome. Social support was a significant moderator (buffer) against perceived racial discrimination for Asian immigrants' self-rated mental health (OR= 1.439, $p \leq .001$; 95% CI [.172 - .556]). Another coping factor, racial/ethnic identity, yielded the opposite effect of the initial hypothesis. Asian immigrants with moderate-high levels of racial/ethnic identity were associated with having poorer self-rated mental health (OR= .488, $p \leq .1$; 95% CI [-1.486 - .053]) and existing in a highly psychologically distressed state (B= .939, $p \leq .1$; 95% CI [-.031 – 1.909]). Regarding group membership factors, Vietnamese ethnicity (B= -1.304, $p \leq .05$; 95% CI [-2.296– -.312]) and being young adults (B= -.938, $p \leq .1$; 95% CI [-2.042 – .312]) demonstrated negative moderating effects (non-protective effects) when Asian immigrants were challenged by perceived racial discrimination.

This study contributes to literature on the effects of perceived racial discrimination and psychological well-being of Asian immigrants in the United States. Also, this project adds to the current literature by examining relevant coping and group membership factors for the Asian immigrant population. Moreover, this investigation recognized the complicated nature of racial/ethnic identity. Findings from the current study reveal important policy and practice implication for settings that serve Asian immigrant populations. For practical application, social workers might help Asian immigrants to obtain a high level of social support, a protective factor for psychological well-being. For policy implications, institutions might promote diversity and disrupt incidents of racial discrimination.

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CHAPTER 1

INTRODUCTION

Overview of Asian Immigrant Population

Historically, Asian immigrants since the late 1800s were members of U.S. society. Research shows that Asian immigrants have vulnerabilities, such as experiences of discrimination, health and mental health needs (Noh & Kaspar, 2003; Gee, Spencer, Chen, & Takeuchi, 2007). However, due to the model minority myth (Sue, Sue, Sue, & Takeuchi, 1995), Asian immigrants as a group are often regarded as successful individuals who do not experience any hardships. It is for this reason that most of the previous research on racial discrimination largely ignored Asian populations and instead focused heavily on African American and Latino populations. The current study focuses on Asian immigrants' experiences of racial discrimination, and how it has detrimental effects on their psychological well-being. Further, it considers coping mechanisms against racial discrimination. Indeed, this study highlights Asian immigrants' vulnerabilities especially when confronted by racial discrimination. However, at the same time, the current study focuses on and celebrates their resilience as well.

Since the 1990s, global migration from low-income countries to high-income countries, such as the U.S. or Germany, became a popular pattern. Moreover, the U.S. is the largest destination country for global migrants (Connor, Cohn, and Gonzalez-Barrera, 2013). The number of Asian immigrants to the U.S. increases steadily.

Previously until 1900s, Asian immigrants constituted a relatively small portion of the United States population (Pew Research Center, 2013). However, during the past 10 years, the number of Asian immigrants grew steadily (Malik, May 21, 2015). Since 2008, for instance, 40% of the U.S. foreign-born population was comprised of people of Asian descent (i.e., Chinese,

Korean, Vietnamese, Pilipino, etc) , which may be compared to 27% in 2005 (Malik, May 21, 2015).

Asian immigrants arrive in the U.S. from various Asian countries with different purposes. Examples of Asian immigrants are Chinese students who come to the U.S. for graduate schools or Indian citizens who come to work in high technology jobs (Ravitz, 2015). Further, a high proportion of Asian immigrants (55%) entered the U.S. through family-sponsored visas, but there are also many Asians who arrive on work visas. A significant number of Asian immigrants are, however, undocumented. In 2013, researchers estimated that 13% of undocumented immigrants were from Asian countries (Malik, May 21, 2015).

Relatedly, educational attainment is an area, which makes Asian immigrant population diverse. An existing stereotype is that Asian immigrants are commonly perceived to be highly educated. In some aspects, it is true. In 2013, more than 61% of newly-arrived Asian immigrants (ages between 24-65) had at least a college degree (Pew Research Center, 2013). Further, among the entire foreign-born college educated immigrant population, 46% were Asian immigrants followed by White immigrants (28%), and Latino immigrants (17%). However, there are some disparities of educational attainment amongst Asian immigrants. Those who come with employed-based visas have the highest levels of education. Nearly 70% of immigrants from Korea and Japan have college degrees (OECD, 2009). On the other hand, Vietnamese immigrants' educational level and English proficiency are noticeably lower than other Asian groups, such as Chinese, Koreans, Japanese, Indians, or Filipinos (Le, 2015).

Generalizations about Asian Immigrant Populations

Despite diversities and crucial cultural differences, Asian immigrants in the U.S. are often conflated in the literature (Sue, Sue, Sue, & Takeuchi, 1995). Their differences in terms of

languages, ethnicities, and countries of origins are not highlighted enough. Another point that is not considered in the literature is Asian immigrants' generational status. According to the Pew Research Center (2013), 74% of Asian Americans were foreign-born, meaning that they are immigrants and not the children of immigrants who are U.S. born. Immigrants and the children of immigrants have many differences in terms of English fluency, level of assimilation, and risk factors for health/mental status (Portes & Rumbaut, 2001). However, these differences are often ignored, and diverse individuals and societies are addressed as a homogenous group: Asian Americans. Generally, this term includes both foreign-born Asian immigrants and U.S. born children of immigrants. The current study makes distinctions between these two groups. For purposes of consistency and understanding, if the literature used the terms interchangeably, it will be referred to as such below.

Model Minority Myth, Discrimination, and Asian Immigrants' Psychological Well-being

Asian immigrants—including foreign-born Asian immigrants and the children of Asian immigrants who are U.S. born—have been perceived by scholars as a “model minority” (Sue, Sue, Sue, & Takeuchi, 1995), due to their relatively high socioeconomic status compared to other groups. The difficulties and challenges of Asian immigrants are often underestimated, especially with regard to their experiences of racial discrimination or poor psychological well-being. In fact, Asian immigrants experience discrimination based on their race, language, and cultures in their daily lives (Noh & Kaspar, 2003; Gee, Spencer, Chen, & Takeuchi, 2007), and many suffer from detrimental and related effects.

Asian immigrants experience discrimination in their daily lives, ever since arriving through the immigration process to the U.S. (Hing, 1993). The types of discrimination experienced by Asian immigrants are distinct, which might be due, at least in part, to stereotypes

that conceptualize “Asian immigrants as foreigners” (Tuan, 1998). Moreover, research findings suggest that the consequently negative impact on psychological wellbeing is harmful. Such people are exposed through immigration and acculturation processes to various types of risk factors that may impact their psychological well-being (Yeung, Chan, Mischoulon, Sonawalla, Wong, & Nierenberg, 2004). Although the lifetime prevalence of depression among Asian immigrants is lower than that of the general U.S. population (Takeuchi, Chung, & Lin, 1998; Xu, Okuda, Hser, Hasin, Lui, Grant, & Blanco, 2011), it is not certain that this information is accurate; especially in light of such evidence as the fact that the suicide rate among Asian women is the highest compared to all other women in the U.S. (Chen, Chen, Wang, & Chung, 2002). Another risk factor for Asian immigrants’ psychological well-being is their tendency to underutilize the mental health services, compared to other racial groups (Leong & Lau, 2001; Abe-Kim, Takeuchi, Hong, Zane, Sue, & Spencer, 2007). This tendency is due to cultural beliefs that depression is a “personal weakness or moral failing” (Chen et al., 2002). Therefore, Asian immigrants tend to report only physical symptoms rather than offering psychological complaints (Chen et al., 2002), such as depressed mood or anxiety. Hence, the prevalence of psychiatric and mood disorders among Asian immigrants are known to be underestimated. In fact, several studies found that responses registered on depression-screening scales (i.e., Center for Epidemiologic Studies Depression Scale (CES-D)) might be lower than actual symptoms for Asian immigrants (Chen et al., 2002). Therefore, the “model minority myth” invalidated Asian immigrants’ experiences of discrimination and, instead, and quite harmfully, purported a delusional image that Asian immigrants lack mental health issues and do not experience racism to the extent that they, in fact, do. This misconception influenced research on this topic.

Definition of Perceived Racial Discrimination

There are a number of definitions that describe racism or racial discrimination. I will present the various terms and the definitions in this section. For the current study, the term perceived racial discrimination is used since this term best captures the phenomenon.

First, racism describes a phenomenon where racial or ethnic minority individuals are being discriminated against by other individuals from majority groups in a given society (Harrell, 2000). More specifically, there is a system of dominance, power, and privilege based on racial groups, which exclude non dominant-group members from status positions and equal access to societal resources (Harrell, 2000). According to a critical review by Williams and Mohammed (2009), racial/ethnic minorities, including Asian immigrants, are vulnerable since they are positioned as targets of racial discrimination, due to their socially disadvantaged status. Asian immigrants are targets of racial discrimination, even as children of immigrants who were born in the U.S. Due to their race; they are seen as “perpetual foreigners” (Tuan, 1998), even if they have assimilated to U.S. society.

There is a reason why the term “perceived racial discrimination” was used for the current study. Although there are multiple and closely-related terminologies to describe racism, each of the terms describes racism from a slightly different angle. For instance, it is uncertain if racism actually took place because the person experiencing the particular situation should interpret the incident as discrimination. This is a very subjective process. Therefore, the term “perceived” discrimination captures the person’s perception of an event. Even if the incident was not one of racial discrimination, one still may experience negative effects if she/he perceived that the event was discriminatory (Verkuyeten, 2008). This is a reason why immigrants’ generational status should be considered when one studies the detrimental effects of racial discrimination.

Immigrants, who come to the U.S. as adults, may expect to experience some forms of discrimination because of their foreign status. However, children of immigrants, who were born in the U.S., might take the racism more seriously—or sensitively—since they consider themselves to be American citizens. Six in ten children of immigrants considered themselves as “typical Americans” (Pew Research Center, February 13, 2013).

Furthermore, the terms “race” and “ethnicity” are commonly used interchangeably, but they are different from each other. Historically, race indicated, “genetic and biological differences associated with racial heritage” (Smedley & Smedley, 2005). More recently, it is known to be a “socially constructed lay theory of the boundaries between people” (Quintana & McKown, 2008). Likewise, ethnicity is deeply associated with culture and refers to groups of people who are characterized in common “nationality, culture, or language” (Betancourt & Lopez, 1993). Although these terms are distinct from each other, race and ethnicity are closely-related concepts. Hence, discrimination based on race and ethnicity is often considered together.

Coping, Group Membership Factors, and Perceived Racial Discrimination

As a response to perceived racial discrimination, people engage in various coping strategies to protect themselves from negative effects, such as problem-focused coping, emotion-focused coping (Lazarus & Folkman, 1984), social support (Mossakowski & Zhang, 2014), religious involvement (Appel, Ai, Huang, & Nicdao, 2013), or vigilant anticipatory coping (LaVesit, Thorpe, & Pierre, 2014).

Just because someone experiences perceived racial discrimination, it does not mean that his reaction will be the same as another person. Indeed, immigrants might react to perceived racial discrimination differently based on various demographic group memberships and factors, such as immigrants’ generational status (whether U.S. born or not), ethnicity, and age.

Immigrants' generational status might be a differential factor due to acculturation and assimilation status (Portes, Fernandez-Kelly, & Haller, 2005). Immigrants and the children of immigrants differ from each other in terms of English language proficiency, acculturation, or ethnic/racial identity status.

In terms of ethnicities, Asian immigrants are a highly diverse population in terms of their cultures, Socio Economic Status (SES), and languages (Malik, May 21, 2015). Belonging to a different ethnic group might cause differential effects towards perceived racial discrimination.

Another demographic factor that should be considered is immigrants' ages. According to a life course perspective (Gee, Walsemann, & Brondolo, 2012), age is an important factor to be considered when scholars study racism. A reason is because the types and frequencies of racism that people encounter may differ as they age. The social institutions (i.e., educational institutions, work places) change for people as they age. As such, it is recommended that researchers of racism should develop tailored measurement instruments for a given developmental stage, which considers the respondents' age and the exposure to racial discrimination (Gee, Walsemann, & Brondolo, 2012).

The current study examined both coping and group membership factors in the relationship between perceived racial discrimination and Asian immigrants' psychological well-being. The coping factors are a) social support, b) ethnic/racial identity; and group membership factors are c) immigrants' generational status, d) ethnic subgroups, and e) age. The two coping factors provide a sense of belonging and social/cultural identities to immigrants, which are important aspects for them to thrive in a host country. The three group membership factors are included to test the differential effects according to immigrants' demographic characteristics.

Current Study

Significance

This study enhances our understanding of the detrimental effects of perceived racial discrimination on Asian immigrants' psychological well-being and the moderating roles of coping factors. The study's main goal is to examine the effects of coping and group membership factors in a particular association: perceived racial discrimination and Asian immigrants' psychological well-being. We already know a great deal about the effects of perceived racial discrimination, as well as protective effects of some coping factors, such as ethnic/racial identity or social support. This study contributes to the literature by examining the differential effects of perceived racial discrimination from Asian immigrants' group membership factors. These are as follows: immigrants' generational status, ethnic subgroup, and age.

Theoretical Framework

This study is based primarily on stress and coping theory, which demonstrates how individuals cope with stressors. The theory introduces various types of stressors that influence one's health or mental health. Perceived racial discrimination is considered to be one of the stressors that put Asian immigrants' psychological well-being at risk. Stress and coping theory explains that individuals utilize various coping strategies in order to protect their own well-being. The current study was also informed by ethnic/racial identity theories, which were approached as coping factors. Together, these two theories suggest that, despite the detrimental effects of stressors, individuals do engage in various coping strategies to protect their own psychological well-being.

Gaps in Knowledge

The current study fills several gaps in the current literature on the effects of perceived racial discrimination and coping methods on Asian immigrants' psychological well-being. First, most of the previous studies on Asian immigrants disregarded the heterogeneity of Asian immigrants' different ethnic groups. But, this study acknowledges their differences to some extent. Second, in contrast to prior research that did not distinguish the immigrants and the children of immigrants, the current study takes this difference into consideration. Finally, while most of the studies did not take immigrants' age into consideration, this study examines the role of respondents' ages at the time of responding to the survey. Gaining knowledge as to whether age plays a role in the particular phenomenon or not will be an important contribution to the literature.

Research Design

This study uses a quantitative approach, including bivariate and multivariate analyses in order to answer these research questions:

- 1) Does perceived racial discrimination impact Asian immigrants' psychological well-being (self-rated mental health and psychological distress)?
- 2-3) Do social support and ethnic/racial identity moderate the relationship between perceived racial discrimination and psychological well-being among Asian immigrants?
- 4-6) Do immigrants' generational status, ethnic subgroup, and age moderate the relationship between perceived racial discrimination and psychological well-being among Asian immigrants?

Dissertation Overview

In the following chapters, I describe the current study and its findings. In Chapter 2, I present stress and coping theory and ethnic/racial identity theories in detail. Chapter 2 also presents the current literature on the detrimental effects of perceived racial discrimination and the protective effects of coping factors. Chapter 3 provides details of the study's methods, data set, variables, and scales. In Chapter 4, I present the findings of the bivariate and multivariate analyses. Finally, Chapter 5 discusses this study's findings and implications for the practice, policy, and future research.

CHAPTER 2

LITERATURE REVIEW

This chapter presents the detrimental effects of perceived racial discrimination on one's well-being. Literature on the issues of health, mental health, and psychological well-being are included. Subsequently, two theoretical frameworks are presented, including: stress-coping theory (Lazarus & Folkman, 1984) and ethnic identity theory (Phinney, 1991). Stress-coping theory is the main theoretical framework of the given study, and racial/ethnic identity theories are presented as part of the discussion on coping factors. Also, the chapter presents extant research findings on the effects of coping factors, identified as follows: social support and racial/ethnic identity. The role of immigrants' generational status on their acculturation status, age, and ethnic subgroups are reviewed as well. Studies conducted on Asian immigrants were prioritized, but previous studies conducted on other racial/ethnic groups are also included in this review.

Detrimental Effects of Perceived Racial Discrimination

Perceived racial discrimination is known to have detrimental effects on one's well-being in terms of physical (Pascoe & Richman, 2009) and psychological health (Pieterse, Todd, Neville, & Carter, 2011). Racial discrimination is one of the significant stressors that racial minority individuals commonly experience (Pascoe & Richman, 2009). People who experience constant racism are under great stress, which is not unlike that of soldiers in battle. Indeed, "racial battle fatigue" is understood as "the result of constant physiological, psychological, cultural, and emotional coping with racial microaggressions [or racial discrimination] in less-than-ideal and racially hostile or unsupportive environments" (Smith, Allen, & Danley, 2007 p. 555). In this way, racial battle fatigue takes away psychological and physiological energy from racial

minority individuals because constantly trying to cope against racism is energy depleting (Smith, 2008).

In terms of physical health, previous studies, such as those conducted by Finch, Hummer, Kolody, and Vega (2001) recognized that ethnic and racial discrimination is associated with overall poor health status among Mexican-origin adults. A meta-analysis by Pascoe and Richman (2009) also found identified harmful effects of racial discrimination. According to a critical review by Williams and Mohammed (2009), racism-related stressors are linked with higher blood pressure, which is a precondition for hypertension and heart diseases. Experiencing discriminated was also associated with negative health outcomes, such as breast cancer among Black women (Taylor, Williams, Makambi, Mouton, Harrell, & Cozier, 2007). Furthermore, facing racial discrimination was associated among African Americans with engaging in risky coping behaviors, such as drinking alcohol (Martin, Tuch, & Roman, 2003).

Racial discrimination was linked with overall poor psychological well-being such as depressive symptoms, distress, and low self-esteem (Pascoe & Richman, 2009). Specific emotional reactions, including sadness (Harrell, 2000) and hopelessness (or lower level of sense of mastery) (Broman, Mavaddat, & Hsu, 2002), were consequence of racial discrimination. Perceived racial discrimination is a stressor that negatively affects one's self-concept. Black and white individuals who experience stress due to racial discrimination registered lowered abilities to regulate the environment (DuBois, Burk-Braxton, Swenson, Tevendale & Hardesty, 2002).

Although the prevalence of psychological disorders is underestimated among Asian Americans, recent studies detrimental effects of racism that influences their mental health. For instance, Ong, Burrow, Fuller-Rowell, Ja, and Sue (2013) studied the effects of racial microaggressions on 152 Asian American's daily well-being. The study found that 78% of the

participants reported experiencing racial microaggressions in their daily lives, and such experiences were associated with increased somatic symptoms and negative affect. Also, two studies using NLASS found that perceived racial discrimination was positively associated with depression among South Asians (Tummala-Narra, Alegria, & Chen, 2012), in particular, and higher psychological distress among all Asian groups (Syed and Juan 2012).

Theoretical Frameworks

This section reviews the theories that are related to coping strategies in the context of one’s perceived racial discrimination as it relates to psychological well-being the stress-coping model and ethnic/racial identity theories.

The Stress- and Coping Model

Lazarus and Folkman’s (1984) study states that stress can have negative impacts on individuals’ physical and psychological health. Their definition of stress presented includes the relationship between the person and the environment in which “a person perceives or appraises it as taxing.” Their study recognizes that the impact of stress will vary depending on individual characteristics, such as age or gender.

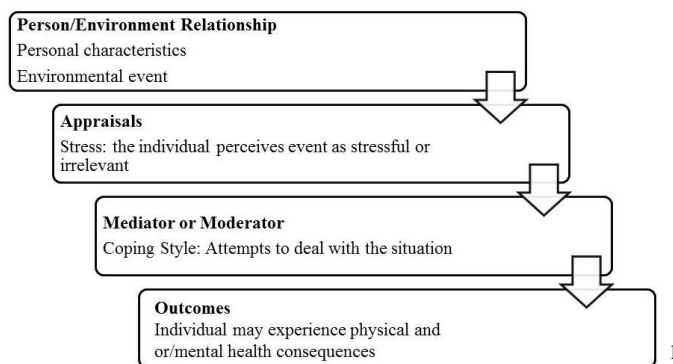


Figure 1. Stress and Coping Theory by Folkman and Lazarus (1984)

¹ Mediators and moderators are different concepts but are put into same place in this figure.

According to this model, there is a two-component cognitive appraisal system that is enacted when a person is found in a potentially stressful situation (Lazarus & Folkman, 1984). During the first stage, referred to as the primary appraisal, an individual determines whether the situation is harmful, threatening, beneficial, or a challenge. If a person decides that the situation is not harmful to his/her well-being, then there will be no further actions taken. The secondary cognitive appraisal stage takes place only if the situation is considered to be harmful during the first appraisal. During the second stage, an individual determines whether any actions can be taken to improve the “troubled person–environmental relationship” (Lazarus & Folkman, 1987). Thus, the stress and coping process is enacted in situations where an individual might doubt potential harm to his/her well-being and safety. When the situation is determined to be harmful, then possible coping options will be evaluated.

The final part of the appraisal aims to determine the appropriate coping strategies. According to the given model, there are two types of coping strategies: “problem-focused” and “emotion-focused.” Problem-focused coping involves individuals’ attempt to eliminate the stressor by their own efforts and actions. Examples of problem-focused coping include taking an action to solve the problem, which possibly includes confronting the person, or actively trying to reframe the stressful event. On the other hand, emotion-focused coping strategies involve focusing on managing an emotional reaction to a stressful event. Examples include denying the event, or telling jokes about what has happened by trying to make it sound as a funny story. The core difference between these two coping styles is that the former one actively engages in dealing with discrimination whereas the latter tries to avoid making efforts in dealing with racial discrimination directly.

The stress-coping model provided a basic framework for understanding the impact of racial discrimination on individuals' well-being. Under this model, racism is understood as one of the numerous stressors that can have harmful effects. However, this model lacks a related discussion on the specific nature of racial discrimination as a stressor. For instance, it does not offer details of the factors that influence or buffer racism. It is also criticized in the literature for empathizing with Western and Eurocentric psychological traditions by stressing "autonomy and individualism" (Lewis, Mendenhall, Harwood, & Browne, 2013). These are substantive shortcomings since racial minority people might be from cultures where these mentalities are less valued or even discouraged.

Also, the stress-coping model does not consider various types of coping resources or coping factors, such as internal characteristics, sociocultural variables, affective/behavioral resources to stress, or external resources (Harrell, 2000). Therefore, in order to study various types of coping factors' effects, the original model will be supplemented for the purpose of the current study. Thus, instead of positioning problem-focused vs. emotion-focused coping styles as mediators or moderators the revised version will include individual level factors as moderators in the model. In the following section, one of the coping factors, ethnic and racial identity theories, is presented.

Racial and Ethnic Identity Theories

Racial and ethnic identity theories are presented in this section, as they are considered by several studies to be important coping resources (Mossakowski, 2003; Scott, 2003b; Sellers, Caldwell, Schmeelk, & Zimmerman, 2003; Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003). Ethnic identity is defined as having "a sense of ethnic pride, involvement in ethnic practices, and cultural commitment to one's racial/ethnic group" (Phinney, 1996). It is an

important aspect of the self-concept for racial minority individuals living in a diverse society like the U.S. However, debate over the role of racial/ethnic identity remains ongoing (Park, Schwartz, Lee, & Kim, 2013). Having a high-level racial/ethnic identity could bring heightened reactions toward racial discrimination, and it may cause worsened psychological well-being (Yoo & Lee, 2008). Or, it may have no association with one's well-being (Scott Jr 2003b).

According to Tajfel (1978), there are four stages of ethnic identity development, including: "diffuse," "foreclosed," "moratorium," and "achieved". Individuals whose ethnic identities are diffused have not explored their ethnic identity; and, those whose ethnic identities are foreclosed have a clear feeling (i.e., positive or negative) about their ethnic identities without exploration. Individuals whose ethnic identities are at the moratorium stage have explored their ethnic identity but are confused about the meaning of it. Lastly, people whose ethnic identities are "achieved" have explored and accomplished a secured understanding and acceptance of their ethnicities.

In terms of racial identity, it is similar to ethnic identity development, but its focus is on race. Several studies, especially with regard to African Americans, incorporated racial identity as their moderating or mediating variable against the harmful effects of perceived racial discrimination (Sellers et al., 2003). Racial identity is defined as "a sense of group or collective identity based on one's perception that he or she shared a common heritage with a particular racial group" (Helms, 1993). Similar to ethnic identity, there is a four-stage process of racial identity, which is developed based on Cross's (1971) conceptual model. This process includes the following stages: "pre-encounter," "encounter," "immersion/emersion," and "internalization and commitment." People who go through all four stages are supposed to have "an inner security and comfort" about their own race (Sellers et al., 2003). In theory, people who achieve the final

stage of racial identity will be able to socialize within and outside their own racial group. Although there are some White racial identity models (Helms, 1993), racial identity is traditionally known to be a significant part of understanding African Americans' racial experiences in the U.S. It may be applied to other racial minority people's experiences as well.

Coping and Group Membership Factors on Psychological Well-Being: Empirical Findings

Social Support

Social support was not included as a coping strategy in the original stress-coping model, but there are a number of studies that examined the coping effects of social support. Racial minorities benefit from social support greatly, especially with regard to emotional aspects and when they are dealing with perceived racial discrimination. According to a critical review by Brondolo, van Helen, Pencille, Beatty, & Contrada (2009), social support provides a sense of security and belongingness which helps individuals to be distracted from the negative incident.

Social support from an ethnic group also helps individuals to understand that racial discrimination is not only their problem but is a shared experience. Noh and Kaspar (2003) tested the mediating effect of ethnic social support between perceived racial discrimination and depression among the Korean immigrant population. The authors hypothesized that if immigrants were well connected with their ethnic communities, emotion-focused coping will be more beneficial. Significantly, the results contradicted the previous finding of Noh, Beiser, Kaspar, Hou, and Rummens (1999). The Korean immigrants in the sample, who were well connected with ethnic communities, benefited from a problem-focused coping style. Researchers concluded that racial minority individuals would be able to fight against perceived racial discrimination if they are equipped with appropriate social support and capital. However, immigrants who were not well connected with their ethnic communities utilized emotion-focused

coping style; and this caused a negative impact on their mental health. This study was unique in that the researchers examined several important variables at the same time. Therefore, rather than drawing a simple conclusion that problem-focused coping is more effective, the existence of ethnic social support was taken into consideration. In other words, for racial minority individuals to use healthier coping strategies—especially immigrant and refugees—they must also have social support. If that condition is fulfilled, then they can engage in more active/problem-solving coping strategies which will be beneficial for their mental health.

Wei, Ku, Russell, and Mallinckrodt's (2008) results indicate that relying on family support as a coping strategy significantly elevated the negative impacts from perceived racial discrimination among Asian international students. Moreover, recently, Mossakowski and Zhang (2014) found a moderating effect of social support among Asian Americans when they experience stress from racial discrimination. Results indicate that perceived emotional support from family was a buffering stress. Likewise, Chae, Lee, Lincoln, and Ihara (2012) and Tummla-Narra, Alegria, and Chen (2012) also found that family support was buffering the detrimental effects of racial discrimination with regard to the onset of major depressive disorder (MDD).

To summarize, previous research findings indicate that obtaining social support was an effective coping strategy. As shown in the previous literature, there are many aspects of social support that are working to diminish the negative impact from discriminatory events. Since ethnic social support and support from family were the most effective coping mechanisms, they must provide a sense of comfort for the victims of racial discrimination.

Ethnic/Racial Identity

Several studies considered racial/ethnic identity as a coping resource. The achievement of an ethnic and racial identity is supposed to elevate the negative effects from perceived racial

discrimination. First, Chavira and Phinney (1991) compared coping strategies by different racial groups. They found that Hispanic individuals with high ethnic identity had different coping styles than those who had low ethnic identity. Individuals with high ethnic identity tended to deal with racial discrimination through conversations, and they tried to disapprove the racist stereotypes that were put on them. On the other hand, individuals with low ethnic identity coped with stress from racial discrimination by simply ignoring it. The authors stated that different racial groups have different coping styles and that the effects of ethnic identity may vary as well. Mossakowski (2003) also examined the role of ethnic identity among Filipino Americans, and the study found that ethnic identity buffers the stress from racial discrimination. Individuals with higher ethnic identity were associated with better mental health outcomes.

Furthermore, Noh et al. (1999) found that individuals with higher ethnic identity benefited more, especially when they utilized forbearance—emotion-focused coping—as a coping strategy against racial discrimination. The authors concluded that ethnic identity worked as a moderator but not as a mediator. This is true because ethnic identity was influencing the strength between perceived racial discrimination and depression. However, it was not in causal reason between the two. Therefore, their study did not find a direct relationship between ethnic identity and depression, such as when racial minority individuals were faced with racial discrimination.

In contrast, Yoo and Lee (2008) examined the moderating role of ethnic identity for Asian college students' situational well-being when they experience frequent racial discrimination. The result was unexpected in that ethnic identity actually worsened the association between racial discrimination and their situational well-being. Significantly, this relationship was more salient for U.S.-born Asians than for recently arrived Asian immigrants.

This finding suggests that the effects of ethnic identity vary by the immigrants' generational status, which is a very intriguing finding. However, there are not enough data or findings to make a firm conclusion. Thus, since the research findings are mixed and unexpected, further study should be conducted on this topic.

In terms of racial identity's coping effect, Scott, Jr. (2003b) considered the role of racial identity on African-American youth. Racial identity is distinct from Phinney's (1989) concept of ethnic identity, since it has been heavily studied as it relates to African Americans' self-identity (Sellers et al., 1998). The results indicated that racial identity did not play any role when individuals make decisions regarding a coping strategy against discriminatory situation. Having a high racial identity may serve as a buffer against perceived racial discrimination, but it might make racial minorities to be hyper vigilant of racial cues (Sellers et al., 2003).

Immigrants' Generational Status, Ethnic Subgroups, and Age.

In general, immigrants have differences in their identity, attitudes, experiences, and socioeconomic status according to their generational status (Pew Research Center, 2004). A previous study found that there are significant differences in ethnic identity and self-esteem among first and second-generation Chinese immigrants in Canada (Lay & Verkuyten, 1999). Another study on South Asian immigrants in Canada also found that immigrants had different acculturative stressors, acculturation attitudes, and different mental health outcomes depending on their generational status (Abouguendia & Noels, 2001). Cervantes, Padilla, Napper, and Goldbach (2013) also found that there were significant differences of mental health outcomes for first, second, and third generational Hispanic adolescents. The first generational immigrant youth reported more stressors in their lives than the other generations. However, all three generations reported equal levels of experienced discrimination.

Although the immigrant health paradox is a widely accepted concept, John, Castro, Martin, Duran, and Takeuchi (2012) assert that it might be an over-generalization since multiple factors affect individuals' health not just their immigrant generational status. Such factors include English fluency, SES, and one's perceived financial need.

Ethnic subgroups also play an important role for immigrants' psychological well-being especially when faced with perceived racial discrimination. A previous study found that Filipino immigrants are more acculturated, and more likely to engage in inter-racial contacts, which put them at increased risk for the detrimental effects of perceived discrimination (Xie & Kimberly, 2013). Another study on a nationally representative Asian American sample conducted by (Li, 2014) found the association between perceived racial discrimination and poor mental health (psychiatric disorder) only among Filipino Americans but not among Chinese or Vietnamese Americans. Filipino Americans also reported the highest incidences of experiencing perceived racial discrimination as well. However, there should be more studies of the ethnic subgroup differences since the dearth of research makes it difficult to draw a conclusion.

Individuals' age is one of the factors that might cause variability in terms of psychological well-being as well as reactions towards racial discrimination. Some scholars assert that age should be considered when studying racism (Gee, Walsemann, & Brondolo, 2012), since the frequency and types of racism that people experience vary with age. The life course perspective takes many factors into consideration when scholars study racism, such as the timing of the discrimination, cohort, or historical context. To be more specific, if individuals experience racism during early childhood, it might have greater and long-term impact on their well-being (Gee, Walseman, & Brondolo, 2012). The current study cannot take all of the factors into consideration, but it will consider respondents' ages.

As mentioned previously, young or emerging adults (ages 18-29) are still exploring their identities and also are in the period when people develop mental health problems (World Health Organization, n.d). Moreover, older adults, who are in the ages between 65 and older, also have much vulnerability both in terms of their physical and mental health. According to statistics, 1 in 5 older adults have mental health problems (Karel et al., 2012). However, how age moderates Asian immigrants' psychological well-being or how it varies the impact of racial discrimination, has not been studied in much detail.

In summation, immigrants' generational status, ethnic subgroups, and age are important factors for immigrants' psychological well-being. These factors also bring differential reactions towards perceived racial discrimination. In the following section, I will discuss the significance of the current study and present the methodologies that will be used for analysis.

Significance of the Current Study

Despite numerous previous studies, my study makes a unique contribution to the literature by examining the coping and group membership factors relevant to the Asian immigrant population. Social support, racial/ethnic identity, immigrants' generational status, ethnic subgroup, and age are important aspects of immigrants' integration in the host country. These variables have been studied separately in previous studies but not together in the same study. In addition, my study is one of the first attempts to study the effect of immigrants' generational status in regards to the particular relationship between perceived racial discrimination and psychological well-being.

Furthermore, this study took different Asian ethnic subgroups into consideration and will take a look at the differential effects. Until now, Asian immigrants were commonly conflated

into one racial/ethnic group despite their diversity of cultures, socioeconomic status, and languages. In a few studies, however, certain Asian ethnic groups were studied exclusively, such as Asian Indians (Inman, Tummala-Nara, Kaduvettoor-Davidson, Alvarez, & Yeh, 2015), South Asians (Tummala-Narra, Alegria et al. 2012, Kaduvettoor-Davidson and Inman 2013), or Chinese Americans (Kim, Wang et al. 2011). Except for a few studies like that of Li (2014), which considered differential effects across Asian subgroups, most of the studies focused on Asian immigrants as a single population (Alvarez, Juang, & Liang, 2006; Appel et al., 2013; Gee et al., 2007; Mossakowski & Zhang, 2014; Liang, Alvarez, Juang, & Liang, 2007). Therefore, studying the effects of different ethnic groups among Asian immigrants will add to the current literature.

Another noteworthy contribution of the current study is that it focuses on two different indicators of person's psychological well-being: psychological distress and self-rated mental health status. Numerous previous studies, especially those from the National Latino and Asian American Study (NLAAS) data, looked at whether the respondent was diagnosed with mood disorders (i.e., major depressive disorders or generalized anxiety disorder) for the last 12 months (Ai, Aisenberg, Weiss, & Salazar, 2014; Appel et al, 2014) or not. Only taking a look at whether respondents were diagnosed with major depressive disorder is a limited approach to capturing their overall psychological well-being. Hence, using K-10 as one of the dependent variables, as well as self-rated mental health, provides information that is more comprehensive.

Lastly, despite the existence of a comprehensive scale, like the everyday discrimination scale (Williams, Yan, Jackson, & Anderson, 1997), previous studies heavily depended on the 3-item perceived racial discrimination scale (Vega, Zimmerman, Gil, Warheit, & Apospori, 1993)

only. My study utilizes these two scales at the same time, and it provides enriched information about Asian immigrants' experiences of perceived racial discrimination.

CHAPTER 3

METHOD

In this chapter, I present research questions, hypotheses, and methodology, including data, sample, and variables. In addition, data management and analytic procedures will be discussed.

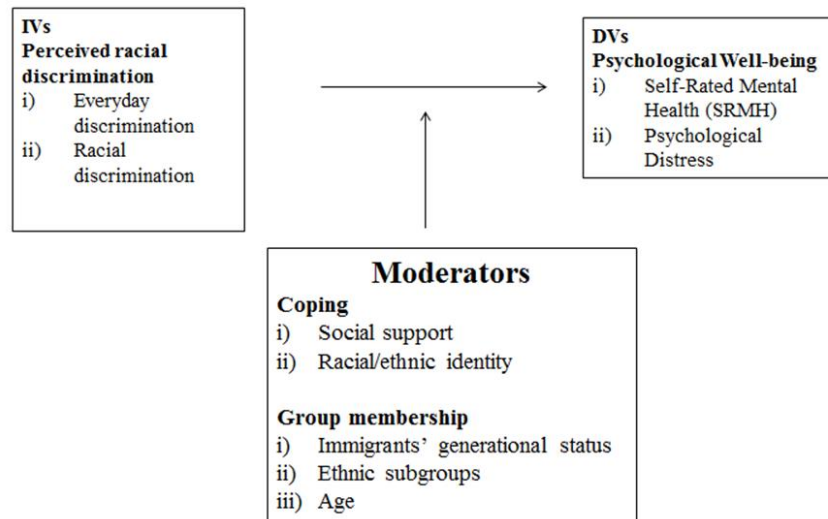


Figure 2. Conceptual Framework

Research Questions and Hypotheses

Research Question 1. Does perceived racial discrimination (measured with everyday discrimination and racial discrimination scales) impact Asian immigrants' psychological well-being (self-rated mental health and psychological distress)?

Hypothesis 1a. Everyday discrimination will have a negative impact on immigrants' self-rated mental health.

Hypothesis 1b. Racial discrimination will have a negative impact on immigrants' self-rated mental health.

Hypothesis 1c. Everyday discrimination will have a positive impact on immigrants'

psychological distress.

Hypothesis 1d. Racial discrimination will have a positive impact on the level of immigrants' psychological distress.

Research Question 2. Does social support moderate the relationship between perceived racial discrimination and psychological well-being among Asian immigrants?

Hypothesis 2a. The relationship between everyday discrimination and self-related mental health is weaker among immigrants with higher levels of social support.

Hypothesis 2b. The relationship between racial discrimination and self-related mental health is weaker among immigrants with higher levels of social support.

Hypothesis 2c. The relationship between everyday discrimination and psychological distress is weaker among immigrants with higher levels of social support.

Hypothesis 2d. The relationship between racial discrimination and psychological distress is weaker among immigrants with higher levels of social support.

Research Question 3. Does racial/ethnic identity moderate the relationship between perceived discrimination and psychological well-being among Asian immigrants?

Hypothesis 3a. The relationship between everyday discrimination and self-related mental health is weaker among immigrants with higher levels of racial/ethnic identity.

Hypothesis 3b. The relationship between racial discrimination and self-related mental health is weaker among immigrants with higher levels of racial/ethnic identity.

Hypothesis 3c. The relationship between everyday discrimination and psychological distress is weaker among immigrants with higher levels of racial/ethnic identity.

Hypothesis 3d. The relationship between racial discrimination and psychological distress is weaker among immigrants with higher levels of racial/ethnic identity.

Research Question 4. Does immigrants' generational status moderate the relationship between perceived discrimination and psychological well-being among Asian immigrants?

Hypothesis 4a. The relationship between everyday discrimination and self-related mental health is weaker among foreign-born Asian immigrants compared to U.S. born immigrants.

Hypothesis 4b. The relationship between racial discrimination and self-related mental health is weaker among foreign-born Asian immigrants compared to U.S. born immigrants.

Hypothesis 4c. The relationship between everyday discrimination and psychological distress is weaker among foreign-born Asian immigrants compared to U.S. born immigrants.

Hypothesis 4d. The relationship between racial discrimination and psychological distress is weaker among foreign-born Asian immigrants compared to U.S. born immigrants.

Research Question 5. Does age moderate the relationship between perceived racial discrimination and psychological well-being among Asian immigrants?

Hypothesis 5a. The relationship between everyday discrimination and self-related mental health is weaker among young adult (ages 18-29) immigrants compared to other age groups.

Hypothesis 5b. The relationship between racial discrimination and self-related mental health is weaker among young adult (ages 18-29) immigrants compared to other age groups.

Hypothesis 5c. The relationship between everyday discrimination and psychological distress is weaker among young adult (ages 18-29) immigrants compared to other age groups.

Hypothesis 5d. The relationship between racial discrimination and psychological distress is weaker among young adult (ages 18-29) immigrants compared to other age groups.

Research Question 6. Does an ethnic subgroup moderate the relationship between perceived racial discrimination and mental health status among Asian immigrants?

Hypothesis 6a. The relationship between everyday discrimination and self-related mental health

is different by ethnic subgroups.

Hypothesis 6b. The relationship between racial discrimination and self-related mental health is different by ethnic subgroups.

Hypothesis 6c. The relationship between everyday discrimination and psychological distress is different by ethnic subgroups.

Hypothesis 6d. The relationship between racial discrimination and psychological distress is different by ethnic subgroups.

Data and Sample

Data were extracted from the National Latino and Asian American Study (NLAAS) (2002-2003), designed as a part of the Collaborative Psychiatric Epidemiology Studies (CPES). There are three surveys under CPES, which include the following: the National Latino and Asian American Study (NLAAS), the National Comorbidity Survey Replication, and the National Survey of American Life. The aim of these three surveys was to collect nationally representative data across three major racial/ethnic groups—African, Latino, and Asian Americans—on their mental health status and mental health service utilization patterns. Above all, these surveys collected data on participants' cultural and immigration factors, which are relevant to their mental health status.

The surveys were conducted in order to obtain baseline information at the national level on racial minority individuals' prevalence for psychological disorders and other related factors (Alegria et al., 2004). The data collection took place between 2002 and 2003 in six different languages (English, Spanish, Mandarin, Cantonese, Tagalog, and Vietnamese). To qualify as a respondent, an individual was required to be 18 years or older, to be living in the non-institutionalized population of the U.S., and to be of Latino or Asian descent (Center for

Multicultural Mental Health Research, 2015). Mental health diagnoses were self-reported measures, using the criteria from the World Health Organization Composite International Diagnostic Interview, which followed the Diagnostic and Statistical Manual of Mental Disorders (4th Ed. [DSM-IV]; American Psychiatric Association, 1994).

The NLAAS used a multi-stage probability sampling design, and there were four stages in total. U.S. metropolitan statistical areas (MSAs) and counties were sampled during the first stage. Afterwards, area segments and housing units within the selected area of segments were sampled. In the final stage, individual respondents were sampled from the eligible housing units. The overall weighted response rate of the Asian sample was 66% (Heeringa et al., 2004).

NLAAS is considered by scholars as one of the most comprehensive studies of Latinos and Asian Americans, using up-to-date scientific strategies, such as designing, sampling, assessing psychiatric disorders, and analyzing data (Center for Multicultural Mental Health Research, 2015). The final sample is composed of 2554 Latinos and 2095 Asian American participants. Ethnicity was divided into four Latino groups (Puerto Rican, Cuban, Mexican, Other Latinos), and four Asian groups (Chinese, Vietnamese, Filipino, and other Asians). To correct sampling biases, weights were used (Alegria et al., 2004; Heeringa, Wagner, Torres, Duan, Adams, Berglund, 2004).

Three specific aims of NLASS are as follows (Alegria et al., 2004; Heeringa, Wagner, Torres, Duan, Adams, Berglund, 2004). :

Aim 1. To estimate the lifetime and 12-month prevalence of psychiatric disorders and the rates of mental health services used for Latino and Asian American populations, adjusting for age and gender effects.

Aim 2. To estimate the association among social position, environmental context, and psychosocial factors with the prevalence of psychiatric disorders, and the utilization rates of mental health services in these populations.

Aim 3. To compare the lifetime and 12-month prevalence of psychiatric disorders, and the utilization of mental health services use for Latino and Asian Americans with non-Latino whites from the National Comorbidity Study-Replication (NCS-R) and African Americans from the National Survey of American Life (NSAL).

The National Institute of Mental Health (NIMH), the Substance Abuse and Mental Health Services Administration, (SAMHSA) Center for Mental Health Services (CMHS), and the Office of Behavioral and Social Sciences Research (OBSSR) support NLAAS (Herringa et al., 2004). More detailed information of the sampling procedures and other details of NLAAS can be found in Heeringa et al. (2004).

The NLAAS is a suitable dataset for responding to the above-mentioned research questions. The dataset carries a comprehensive overview of Asian immigrants' mental health status, demographic information, immigrant generational status, and experiences of racial discrimination. Above all, it is a nationally-representative dataset with a substantial sample size that is more than two thousand Asian immigrants. Many previous studies conducted on Asian immigrants had small sample sizes that were collected locally; consequently, baseline information for this population is lacking. For the current study, a sample of Asian immigrants (n=2,095) will be used for analysis, but the final sample will be reduced after list-wise deletion of missing values. There are three major nationalities among the Asian sample: Chinese (N=600), Filipino (N=508), and Vietnamese (N=520). Other Asian nationalities are categorized into Other Asians (N=467), which includes Indians, Japanese, and Koreans. The entire Asian immigrant

sample is 2095, but only the respondents who answered all of the variables that were used in the study are included.

Variables and Measures

Full sets of questions for each scale are included in the appendix section.

Psychological Well-Being (Dependent variables)

Psychological distress. It was measured by the Kessler Psychological Distress Scale (K10; Kessler, Andrews, Cope, Hiripi, Mroczek, Normand, Walters, & Zaslavsky, 2002). It calculates a respondent's psychological functioning within the course of 30 days by measuring anxiety, depression, and overall psychological distress. However, it does not measure severe psychotic disorders (Andrew & Slade, 2001). Among 612 items related to psychological and physical symptoms, 10 items were finalized, referred to as "K10" (Andrew & Slade, 2001) to screen serious mental illness (SMI) from non-cases (National Comorbidity Survey, n.d). K10 has been used for World Health Organization's World Mental Health (WMH) surveys on 250,000 individuals across 30 different countries (National Comorbidity Survey, n.d). Its scale properties are also found to be stable in minority sub-samples. K10 has strong internal reliability with a Cronbach alpha reliability of .93 (Kessler et al., 2002).

Participants respond by answering, to what extent do they agree with the 10 statements on a 5-point Lickert-type scale, ranging from 1 (none of the time) to 5 (all of the time). Examples of items include, "about how often did you feel hopeless?" or "about how often did you feel depressed?" All the items are included in Appendix A. The range of K10's total score is 10 to 50. A total score of 13 or higher is considered as a cut-off score to screen serious mental illness (National Comorbidity Survey, n.d). However, for the current study, 3 items with missing values—more than 1000—will be excluded from data analysis. The validity of the scale should

be strong despite excluding these items, since there are similar statements asking for respondents' depressed mood, restlessness, and nervousness. Hence, the total score of the psychological distress variable will be treated as a continuous variable with a range of 7-35.

Self-rated mental health. It is a single item which asks respondents to rate their overall mental health for the last 30 days on a 5-point Likert scale from 1= poor to 5= excellent. The score was reverse coded so that a higher score will indicate better mental health functioning. For data analysis, this variable was categorized into a binary variable: (1= poor, fair, and good) and (2= very good, and excellent). Due to the distribution of this variable, it was recoded into a binary variable, if possible. Self-Rated Mental Health (SRMH) measures one's perceived mental health, and it has been found to moderately correlate with other scales, such as Kessler Psychological Distress Scale (Kessler et al., 2002) and Patient Health Questionnaire (Kroenke, Spitzer, & Williams, 2001). Poor SRMH was associated with poor self-rated health, physical health problems, and less satisfaction with mental health services (Ahmad, Kjhajj, Stewart, Burghardt, & Bierman, 2014).

Everyday Discrimination and Racial Discrimination (Independent Variables)

Based on the Stress-Coping theory (Lazarus and Folkman, 1984) as a framework, perceived racial discrimination is added to the model as an independent variable (stressor). According to the NLAAS, there are two scales to measure perceived racial discrimination, including: everyday discrimination and racial discrimination. For everyday discrimination, the 9 items ask for the reasons of experienced discrimination only at the end. Also, the survey prompted respondents who did not answer that they experienced discrimination to move to the next item. However, the 3-item racial discrimination scale specifically asks the respondents about experiences as victims of racial discrimination. Details of the scales are explained below.

Everyday discrimination. There are 9 items on the everyday discrimination scale, which was developed by Williams, Yan, Jackson, and Anderson (1997). It measures respondents' experiences of unfair treatment on a 6-point Likert scale from 1 (never) to (almost every day). A total score of 9 items can range from 9-45, and it will be used as a continuous variable. The internal consistency for this scale is high with Cronbach's alpha of .88 (Williams et al., 1997). The next question, following this scale, asks about the cause of everyday discrimination. For the question—"What do you think was the main reason for [this experience], would you say?"—respondents are asked to choose from 10 different reasons, including ethnicity, gender, or age, among others. For the given study, only if respondents chose a race-related reason is their answer and total score used for analysis. There are three race-related reasons: 1= your ancestry or national origin or ethnicity, 3= your race, and 6= your skin color. If the respondents answered that the reasons for their discrimination was related to race, ethnicity, or skin color, if the respondents chose other reasons, such as their gender, age, height, sexual orientation, weight, or income, their score will be treated as "never" (total score=9) for the perceived racial discrimination. In addition, if respondents never experienced any discrimination, their total score for racial discrimination will be coded as "never" (total score=9). The original total score was log transformed due to the distribution. Also, if the respondents answered that the reasons for the discrimination were related to other factors, then the answer for the everyday discrimination was treated as 9.

Racial discrimination. A 3-item scale, developed by Vega, Zimmerman, Gil, Warheit, Apospori (1993), measures respondents' experiences of racial discrimination on a 4-point Likert scale from 0 (never) to 3 (often). It measures how often respondents felt disliked or treated

unfairly due to their race. The total score, ranging from 0 to 9, was used as a continuous variable. Reliability of this scale is .910.

Social Support, Racial/Ethnic Identity, Immigrants' Generational Status, Ethnic Subgroups, and Age (Moderating Variables)

There are moderating variables in the study, which include the following as regards coping strategies: social support, racial/ethnic identity, and group memberships. The subcategories of group memberships include generational status of immigrants, ethnic subgroup, and age. These factors are based on the theoretical framework.

Social support

The NLASS has 12 items that ask about respondents' positive and negative social interactions with their family members and friends. This measurement system is referred to as the Social Interaction Scale, and Schuster, Kessler, and Aseltine (1990) developed it. Since the current study will regard information on the positive social support, 6 items will be selected by following the priori study (Mossakowski & Zhang, 2014).

Received social support from family and friends. It is measured by how often the respondents talk on the phone or meet with family, relatives, or friends. The responses can range from (1=not at all) to (4=a lot).

Perceived emotional support from family. It is measured by the following factors: (1) the extent to which the respondent can confide to family, relatives, or friends to talk about worries, and (2) to what extent the respondent can rely on family, relatives, or friends to help with a serious problem. These items measure the respondents' assessment of the social support that they think they will receive in a difficult situation. The responses can range from (1= not at all) to (4= a lot).

A previous study by Mossawkowski & Zhang (2014) considered four different types of social support separately. However, since the current study aims to consider the impact of overall social support, the total score for social support (6-24) was used for analysis as a continuous variable.

Racial/Ethnic identity

There are four items for measuring the respondents' ethnic identity. On a 4-point Likert scale, respondents indicate their answers from 0 to 4. Examples of the items include, "how much do you identify with other people who are of the same racial and ethnic descent as yourself?" and "if you could choose, how much time would you like to spend with other people who are of your same racial and ethnic group?". A total score (4-16) was used as a continuous variable.

Age

Age was originally measured by a continuous numerical value, 18-95. For the purpose of analysis, age was categorized into four different groups. These groups include the following: 18-29, 30-44, 45-64, and 65-95. The youngest group (18-29) is comprised of young adults, the second group (30-44) is the next young-adult group, and the third group (45-64) is comprised of middle-aged participants. The last group (65-95) includes the older adults in the sample.

Immigrants' generational status

In the original dataset, the age when the respondents immigrated to the U.S. was measured, according to 4 different groups: (1= U.S. born), (2= less than 12 years), (3= 13-17 years), and (4= 35 or older). Researchers debate how to define the 1.5 as different from 2nd generation immigrants (children of immigrants), since some scholars believe that children of immigrants only should be the ones considered to be born in the host country (Rumbaut, 1994; Park, 1999). However, including the children, who immigrated before the age of 12, into the

“children of immigrants” group makes more sense, considering the acculturation process (Portes & Zhou, 1993). The current study followed the latter definition and included the children who immigrated before the age of 12 into the “U.S. born children of immigrants” group. Therefore, for the analysis of the current study, this variable was recoded into two different generations: (1= U.S. born or arrived before the age of 12) and (2= foreign-born immigrants or arrived after the age of 13).

Ethnic subgroups

Asian immigrants’ ancestry was used as a moderating variable for analysis. There are four groups of Asian ancestries, including: (1= Vietnamese), (2= Filipino), (3= Chinese), and (4= All other Asians). The last group includes Koreans, Japanese, and Indians. Vietnamese immigrants are a reference group.

Individual and community factors (control variables)

Sociodemographic factors

Gender. Gender was coded as 0= male, 1= female. Male was a reference group.

Marital status. Marital status was categorized into 3 different groups: 1= married/cohabiting, 2= divorced/separated/widowed, and 3= never married. Married was a reference group.

Education. Years of education was categorized into 4 groups: 1= 0-11 years, 2= 12 years, 3= 12-15 years, 4= Greater than or equal to 16 years. Zero to eleven years of education was a reference group.

Household income. Income was measured numerically. For the given study, it was categorized into 4 groups, as follows: 1= lower than \$15,000, 2= \$15,000 to \$34,999.9, 3=

\$35,000 to \$74,999.9, and 4= \$75,000 or more. Household income of \$15,000 or lower was used as a reference group for analysis.

Employment status. There are three categories for respondents' employment status: 1= employed, 2= unemployed, 3= not in labor force. The reference group of 2= unemployed.

Data Analysis

All the analysis was conducted on STATA 13.0 SE. To address the missing values, list-wise deletion was used if the remaining cases were large enough. 7% of the original sample had missing values, and they were excluded from analyses. For a scale with multiple items, averaging the rest of the items' scores was done.

First, I conducted descriptive statistical analysis and chi-square tests to investigate the bivariate relationship between study variables. Then, I conducted regression diagnostics to check the distributions of variables to find possible issues, such as multicollinearity. I conducted two types of regression analysis to test the main effect of perceived racial discrimination on two different psychological well-being outcomes. First, in order to test the effect of perceived racial discrimination on psychological distress, Ordinary Least Square (OLS) regression was conducted. For the self-rated mental health status, I conducted a binary logistic regression. Next, by using interaction terms in the final regression models, I investigated the moderating impact of the two coping and three-group membership factors. For each model, I conducted two-step regression analysis, first without any interaction terms, and the second included the interaction terms.

Throughout all analyses—from descriptive statistics to regression analyses—a complex survey design was incorporated. That is, by using the weights for the Asian sample, findings from the current study are representative of the Asian immigrant population in the United States.

CHAPTER 4

RESULTS

This chapter presents descriptive statistics for the variables used in the study, and it also reveals the results of a series of binary logistic and Ordinary Least Squares (OLS) regressions. This chapter includes the results of an examination of the impact of two types of perceived racial discrimination, including self-rated mental health and psychological distress. Also, this chapter includes the results of an examination of the moderating effects of coping. These include social support and racial/ethnic identity, variables and group membership, immigrants' generational status, ethnic subgroups, and age, variables on two dependent variables.

Descriptive Results

In Table 1 presents the weighted means and standard deviations for continuous variables or percentages for categorical variables. As shown, almost half of them sample was male (52.35%) and the other half was female (47.65%). The mean age was 41.21 years old (Std. Dev.= 14.76). When categorized into 4 different age groups, 26.03% of the sample were between the ages of 18-29, 36.07 % of them were between the ages of 30-44, 27.06% of them were between the ages of 45-64, and the other 10.30% were between the ages of 65-95. As regards to ethnicities, there were Vietnamese (12.93%), Filipino (21.59%), Chinese (28.69%) and the other 36.79% were Korean, Japanese, or Indian. Regarding Asian immigrants' educational level, 14.31% had less than 12 years of education, 17.87 % had 12 years, 25.19 % had between 13 and 15 years, and 42.63% had 16 or more years of education. As regards employment status, 63.75% of Asian immigrants were employed, 6.35% were unemployed, and the other 29.9% were not in the labor force. The majority of Asian immigrants in the sample (68.71%) were married, 8.38% were never married, and the other 22.9% were widowed, separated, or divorced. For immigrants'

generational status, 63.23% of the sample included foreign-born immigrants who arrived in the U.S. after the age of 13, and the other 32.76 % were U.S. born children of immigrants or those who came to the U.S before the age of 12.

As regards to perceived racial discrimination, 36.01% of the Asian immigrants reported experiencing low-level racial discrimination (who ranked 3 out of 12 on the scale), and the other 63.99% were experiencing high-level racial discrimination (who ranked 4 or above). For another racial discrimination measurement, everyday discrimination scale, Asian immigrants' mean score was 15.99 (Std. Dev: 6.528) on a range of 9 to 54. In terms of psychological well-being, 37.29% reported experiencing low psychological distress (who scored 7 on a range of 7 to 35), and the other 62.71% reported experiencing high psychological distress (who scored between 8 to 35). The cut-off point was decided as 7, due to the distribution of the scores in the sample. Moreover, 34.82% of the Asian immigrants reported that they had overall poor mental health, and the other 65.18% reported good mental health.

The mean score for social support that Asian immigrants reported was 21.23 (Std. Dev: 4.55) on a range of 6 to 26. As regards racial/ethnic identity, 24.5% of the sample had low ethnic identity, 45.55% had moderate, and 29.95 % reported high ethnic identity. More than half of the sample reported that they were experiencing high levels of racial discrimination and that they are experiencing high levels of psychological distress.

Table 1. Characteristics of Study Sample

Weighted mean or percentage			
Variables	All sample (N=2095)	Variables	All sample (N=2095)
Dependent Variables		Independent Variables	
<i>Psychological distress (range 7-35)</i>		<i>Racial discrimination</i>	
Low (scored 7)	37.29%	Low (scored 3)	36.01%
High (scored 8-35)	62.71%	High (scored 4-12)	63.99%
<i>Self-Rated Mental Health</i>		Everyday discrimination (range: 9-54)	15.99 (St.Dev:6.528)
Poor	34.82%	Control Variables	
Good	65.18%	<i>Education</i>	
Moderating Variables		Less than 12 years	14.31%
<i>Social support</i> (range: 6-26)	21.23 (Std. Dev: 4.55)	12 years	17.87%
<i>Racial/ethnic identity</i>		13-15 Years	25.19%
Low (scored 4-10)	24.5%	16+ years	42.63%
Moderate (scored 11-13)	45.55%	<i>Employment status</i>	
High (scored 14-16)	29.95%	Employed	63.75%
<i>Age group</i>		Unemployed	6.35%
18-29	26.03%	Out of labor force	29.9%
30-44	36.07%	<i>Marital status</i>	
45-64	27.60%	Married	68.71%
65-95	10.30%	Never married	8.38%
<i>Ethnicity</i>		Widowed/separated/divorced	22.9%
Vietnamese	12.93%	<i>Household income</i>	
Filipino	21.59%	< \$14,999	18.25%
Chinese	28.69%	\$15,000-\$34,999	12.76%
Other	36.37%	\$35,000- \$74,999	28.04%
<i>Immigration Status</i>		>= \$75,000	40.95%
U.S. born or arrived before 12 yrs.	32.76%	Characteristics	
Came after 13yrs.	67.23%	<i>Sex</i>	
		Male	
		Female	
		<i>Age (years)</i>	
		Min:18	
		Max:95	
		Mean: 41.21	
		Std.Dev: 14.76	

Bivariate Results

Bivariate analyses among dependent variables, independent variables, and moderators were conducted. Also, chi-square tests were conducted in order to first examine the relationship between study variables before answering the research questions.

Relationships among psychological distress and independent and control variables

Chi-square tests were conducted to examine whether there are significant differences between categorical study variables. Table 2 presents the results from 22 separate chi-square tests. In this process, 11 chi-square tests were performed, respectively, to determine whether there were significant differences on respondents' levels of psychological distress (low vs. high), depending on their perceived racial discrimination (low vs. high), racial/ethnic identity (low, moderate, or high), immigrants' generational status (first vs. second and later), ethnic subgroup (Vietnamese, Filipino, Chinese, or Other), age (10s to 20s, 30s, 40s, or 50s, and older), gender (female vs. male), household income (\leq \$14,999, \$15,000 to \$34,999, \$35,000 to \$74,999, \$75,000 or more), work status (employed, unemployed, not in labor force), years of education (0 to 11 years, 12 years, 13 to 15 years, 16 or more years), and marital status (married, divorced, never married).

Perceived racial discrimination and psychological distress are significantly related. Those who experience higher levels of racial discrimination were more likely to experience psychological stress compared with those who experience lower levels of racial discrimination (64% vs. 51%).

Also, racial/ethnic identity and psychological distress are significantly related. Those who have lower-levels of racial/ethnic identity were more likely to experience psychological distress

compared to those who reported higher levels of racial identity (71% for low racial identity vs. 55% for high racial identity).

Ethnic subgroups demonstrated significant relation to psychological distress. In particular, some ethnic subgroups were more likely to experience psychological distress than the others (71% of Chinese vs. 47% of Vietnamese). Age and psychological distress were significantly related, too. Those in the younger group were more likely to experience higher psychological stress (e.g., 67% for the 18 to 29 group, vs. 54% for the 65 to 95 group). Further, gender and psychological distress were significantly related. Female immigrants (34%) were more likely to report psychologically distress than male immigrants (41%).

Also, work status was also significantly related with psychological distress. Those who are not in labor force (39%), and those who are employed (38%), were more likely to be distressed than those who are not employed (24%). Furthermore, immigrants' years of education were also significantly related with their levels of psychological distress. Those with lower levels of education were more likely to report distress than immigrants with higher levels of education (45% for 0 to 11 years vs. 35% for 13 to 15 years). Further, social support was also significantly related with psychological distress. Those with low social support were more likely to be distressed than immigrants with high social support (47% vs. 36%).

Notably, there was no significant differences on the psychological distress by the immigrants' generational status (p-value= .8891), household income (p-value= .1709), and marital status (p-value= .0611).

Relationships among Self-Rated Mental Health (SRMH) and Independent and Control

Variables

Another 11 chi-square tests were performed, respectively, to determine if there were significant differences with regard to respondents' self-rated mental health (poor vs. good), depending on their experiences of perceived racial discrimination (low vs. high), racial/ethnic identity (low, moderate, or high), immigrants' generational status (first vs. second and later), ethnic subgroup (Vietnamese, Filipino, Chinese, or Other), age (10s to 20s, 30s, 40s, or 50s and above), gender (female vs. male), household income (\leq \$14,999, \$15,000 to \$34,999, \$35,000 to \$74,999, \$75,000 or more), work status (employed, unemployed, not in labor force), years of education (0 to 11 years, 12 years, 13-15 years, 16 or more years), and marital status (married, divorced, never married) .

Immigrants' generational status was significantly related to their self-rated mental health status. Children of immigrants (U.S. born or arrived after the age of 12) were more likely to report well self-rated mental health compared to foreign-born immigrants (arrived in U.S. after the age of 13) (73% vs. 60%). Also, ethnic subgroups were significantly related to self-rated mental health. Some ethnic subgroups were more likely to report good self-rated mental health compared to others (73% of Filipino vs. 53% of Chinese).

Age and self-rated mental health were significantly related, too. It appears that those who were in the younger group were more likely to present good self-rated mental health than the older immigrants (e.g., 73% for 18 to 29 group, vs. 45% for 65 to 95 group). Additionally, gender and self-rated mental health were also significantly related. Female immigrants (61%) were more likely to be psychologically distressed than male immigrants (59%).

In terms of work status, it was also significantly related to one's self-rated mental health. Those who are employed were more likely to record a good self-rated mental health status than those who were not in the labor force (69% vs. 39%). Furthermore, immigrants' years of education were also significantly related with their self-rated mental health. Those with higher levels of education were more likely to claim good self-rated mental health than immigrants with lower levels of education reported (74% of 16 or more years vs. 47% of 0 to 11 years). Furthermore, social support was significantly related with self-rated mental health. Those with high social support were more likely to report good self-rated mental health than immigrants with low levels of social support (67% vs. 45%).

There were no significant differences on the self-rated mental health as to respondents' racial discrimination (p-value= .1223), level of ethnic identity (p-value= .4014), and marital status (p-value= .1517).

Table 2. Bivariate analysis for Asian immigrants' experiences of perceived discrimination, mental health outcomes, and moderating variables

National Latino and Asian American Study NLAAS 2002-2003 (Weighted analysis)				
Variables	Factor	Self-Rated Mental Health (SRMH)		p-value
		Poor (%)	Good (%)	
Racial discrimination (range: 3-12)	Low (3)	32.06	67.94	.1223
	High (4 ≤)	36.27	63.73	
Racial Identity (range: 4-16)	Low (4-8)	32.4%	67.6%	.4014
	Moderate (9-12)	34.56%	65.44%	
	High (13-16)	36.74%	63.26%	
Immigrant generational status	1 st generation	39.37%	60.63%	.000
	2 nd generation	26.62%	73.38%	
Ethnic subgroup	Vietnamese	45.04%	54.96%	.000
	Filipino	25.3%	74.7%	
	Chinese	46.92%	53.08%	
	All other	27.42%	72.58%	
Age	18-29	27.44%	72.56%	.0000
	30-44	32.67%	67.33%	
	45-64	36.86%	63.14%	
	65-95	55.53%	44.47%	
Gender	Female	38.97%	61.03%	.0033
	Male	30.26%	59.24%	
Household Income	≤ \$14,999	45.86%	54.14%	.0001
	\$15,000 - \$34,999	41.25%	58.75%	
	\$35,000 - \$74,999	31.79%	68.21%	
	≥ \$75,000	29.96%	70.04%	
Work status	Employed	30.52%	69.48%	.0001
	Unemployed	46.06%	53.94%	
	Not in labor force	60.76%	39.24%	
Years of Education	0-11 years	53.42%	46.58%	.0000
	12 years	42.08%	57.92%	
	13-15 years	33.17%	66.83%	
	16 or more	26.5%	73.5%	
Marital status	Married	35.25%	64.75%	.1517
	Divorced	42.55%	57.45%	
	Never Married	30.69%	69.31%	
Social Support	Low	50.51%	49.49%	.0000
	High	33.05%	66.95%	
Variables	Factor	Psychological Distress		
		Low (%)	High (%)	

Table 2 (cont.)

Racial discrimination (range:3-12)	Low (3)	49.15%	50.55%	.0000
	High (4 ≤)	36.27%	63.73%	
Racial Identity (range: 4-16)	Low (4-8)	29.42%	70.58%	.0025
	Moderate (9-12)	36.49%	63.51%	
	High (13-16)	44.55%	55.45%	
Immigrant generational status	1 st generation	37.04%	62.96%	.8891
	2 nd generation	37.43%	62.57%	
Ethnic subgroup	Vietnamese	53.44%	46.56%	.0000
	Filipino	35.05%	64.95%	
	Chinese	29.33%	70.67%	
	All other	39.14%	60.86%	
Age	18-29	32.89%	67.11%	.0362
	30-44	35.21%	64.79%	
	45-64	40.79%	59.06%	
	65-95	46.02%	53.98%	
Gender	Female	66.09%	33.91%	.0033
	Male	59.02%	40.98%	
Household Income	≤\$14,999	62%	38%	.1709
	\$15,000 - \$34,999	64.29%	35.71%	
	\$35,000 - \$74,999	67.17%	32.83%	
	\$75,000 or more	59.51%	40.49%	
	Employed	62.29%	37.71%	.0324
Work status	Unemployed	67.17%	23.83%	
	Not in labor force	60.76%	39.24%	
	0-11 years	55.51%	44.49%	.0337
	12 years	59.34%	40.66%	
Years of Education	13-15 years	65.48%	34.52%	
	16 or more	64.89%	35.11%	
	Married	61.13%	38.87%	.0611
	Divorced	60.15%	39.85%	
Marital status	Never Married	68.36%	31.64%	
	Low	52.93%	47.07%	.0071
Social Support	High	63.55%	36.45%	

Multivariate Results

Relationships between Perceived Racial Discrimination and Everyday Discrimination with Self-Rated Mental Health

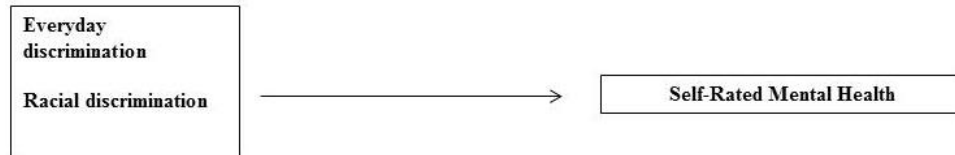


Figure 3. Analytical model for the first binary logistic regression to test the main effect

A binary logistic regression model was estimated to address the first research question: “Does perceived racial discrimination have effect on Asian immigrants’ psychological well-being (i.e., psychological stress and self-rated mental health)?” since the outcome variable for first research question is a binary variable. This logistic regression examined the effect of two types of racial discrimination, contributing to the probability of having poor or good self-rated mental health, while also controlling for the effects of other independent variables. Those include respondents’ demographic and socioeconomic characteristics, coping factors, and group membership factors.

After controlling for respondents’ demographic characteristics, the association between perceived racial discrimination and Asian immigrants’ self-rated mental health status is negatively and statistically significant. Results indicated that those who reported experiencing high levels of racial discrimination were less likely to report good self-rated mental health (OR= .690, $p \leq .05$; 95% CI [-.701- -.041]). In addition, those with support that is more social were more likely to have good self-rated mental health (OR=1.068, $p \leq .01$; 95% CI [.026- .102]). In terms of ethnic subgroups, Filipino immigrants (OR= 1.821, $p \leq .01$; 95% CI [.164 – 1.035]) were more likely to have good self-rated mental health than Vietnamese immigrants. But,

Chinese immigrants (OR=.730, $p \leq .1$; 95% CI [-.634 - .004]) were less likely to have good self-rated mental health in comparison to Vietnamese immigrants.

Respondents' individual characteristics, including gender, years of education, and employment status were identified as factors contributing to the probability of experiencing poor or good self-rated mental health. Notably, female immigrants were more likely to have good self-rated mental health compared to male immigrants (OR=1.539, $p \leq .05$; 95% CI [.101, .761]). Those with 12 to 15 years (OR=1.617, $p \leq .01$; 95% CI [.124 - .838]), and for those with 16 or more years (OR=2.202, $p \leq .001$; 95% CI [.394– 1.185]) of education, were more likely to have good self-rated mental health, compared to those with 0 to 11 years of education. Moreover, those employed (OR= .080, $p \leq .001$; 95% CI [-.888– -.301]) were less likely to have good self-rated mental health, compared to those unemployed.

Table 3. Binary Logistic Regression Model on Self-Rated Mental Health

Asian Immigrants (N= 2095) from NLAAS (Weighted analysis)			
Variables	Coeff. (S.E)	Odds Ratio	95% CI
Racial Discrimination			
Log of Everyday Discrimination	-.394 (.273)	.674	[-1.209, .420]
Racial Discrimination (Low)			
High	-.371** (.113)	.690	[-.701, -.041]
Coping Factors			
Racial Identity (Low)			
Moderate	-.116 (.112)	.891	[-.370, .138]
High	-.069 (.139)	.933	[-.369, .231]
Social Support	.064**** (.020)	1.068	[.026, .102]
Group Membership Factors			
Immigrant Generational Status (1 st gen)			
2 nd gen	-.313 (.116)	.731	[-.633, .007]
Ethnic subgroup (Vietnamese)			
Filipino	.599 *** (.394)	1.821	[.164, 1.035]
Chinese	-.315* (.116)	.730	[-.634, .004]
All other	.294 (.288)	1.341	[-.139, .726]
Age (18-29)			
30-44	-.222 (.175)	.801	[-.664, .219]
45-64	-.329 (.161)	.720	[-.780, .122]
65 and older	-1.180 (.120)	.307	[-1.964, -.396]
Individual Characteristics			
Gender (Male)			
Female	.430** (.252)	1.539	[.101, .761]
Marital Status (Married)			
Divorced/Separated/Widowed	.106 (.367)	1.111	[-.421, .659]
Never Married	-.260 (.163)	.771	[.124, .838]
Years of Education (0-11 yrs.)			
12 yrs.	.119 (.302)	1.126	[-.421, .659]
12-15 yrs.	.481 *** (.286)	1.617	[.124, .838]
16 or more years	.790**** (.432)	2.202	[.394, 1.185]
Household Income (< \$14,999)			
\$15,000 - \$34,999.99	.083 (.281)	1.086	[-.439, .604]
\$35,000 - \$74,999.99	.226 (.284)	1.254	[-.230, .682]
\$75,000 or more	.144 (.226)	1.155	[-.250, .539]
Employment Status (Unemployed)			
Employed	-.594**** (.080)	.080	[-.888, -.301]
Not in labor force	-1.21 (.141)	.809	[-.563, .140]
F(df)	9.87 (45)	.000	[.026, .102]

Note. Categories in parentheses are reference groups.

*p≤.1. **p≤.05. ***p≤.01 ****p≤.001

Moderating Impact of Coping Factors and Group Membership Factors between Racial Discrimination and Self-Rated Mental Health

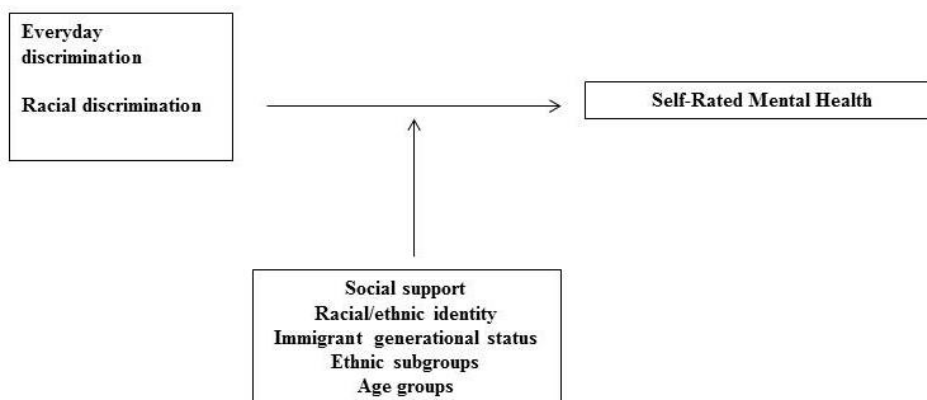


Figure 4. Analytical model for the second binary logistic regression to test the moderating effects

A second binary regressions analysis was conducted to answer research questions 2 to 6: “Do coping (social support and racial/ethnic identity) and group membership (immigrants’ generational status, ethnic subgroup and age) factors moderate the relationship between perceived racial discrimination and psychological well-being among Asian immigrants?” After controlling for respondents’ demographic characteristics, such as household income, level of education, and marital status, the full regression model achieved significance. Hypotheses 2c, 3b, and 6b were supported; results indicated that those who reported experiencing a high everyday discrimination were less likely to experience good self-rated mental health (OR= .0000, $p \leq .01$; 95% CI [-15.964– -3.995]).

Consistently, from the first binary logistic regression model on Table 3, respondents’ individual characteristics, including gender, years of education, household income, and employment status were contributors to the probability of reporting poor or good self-rated mental health. In particular, female immigrants were more likely to have good self-rated mental

health (OR= 1.549, $p \leq .01$; 95% CI [1.10–1.766]). Those who had 12 to 15 years (OR=1.624, $p \leq .05$; 95% CI [1.093–1.877]) and immigrants with 16 or more years (OR= 2.230, $p \leq .001$; 95% CI [1.414 – 1.190]) of education were more likely to have good self-rated mental health than those with 0 to 11 years of education. Unlike first binary logistics regression model, those who were employed (OR= .563, $p \leq .001$; 95% CI [-1.907– -.243]) were less likely to have good self-rated mental health than those who were unemployed.

The two coping factors, social support and racial/ethnic identity, moderated the relationships between perceived racial discrimination and self-rated mental health status. Social support showed a significant moderating effect (OR= 1.439, $p \leq .001$; 95% CI [1.172 - 1.556]), indicating that among the respondents who experienced everyday discrimination, those with higher levels of social support were more likely to have good mental health than those with lower levels of social support. Racial/ethnic identity (OR= .488, $p \leq .1$; 95% CI [-1.486 - 1.053]) also showed a marginally significant moderating effect when it interacted with racial discrimination. In other words, the immigrants with moderate levels of racial/ethnic identity were more likely to report a good self-rated mental health, even if they experience racial discrimination, compared to individuals with low racial identity.

Among group membership factors, ethnic subgroup and age showed marginally significant moderating effects. Filipino ethnicity (OR= 2.626, $p \leq .1$; 95% CI [1.166 – 2.097]) was a significant moderator when interacted with racial discrimination. Filipino immigrants were more likely to have good self-rated mental health, even if they experience racial discrimination, compared to Vietnamese immigrants. Moreover, individuals in the age range 30 to 44 (OR=1.843, $p \leq .1$; 95% CI [1.034 – 1.257]) were more likely to have good self-rated mental

health, even if they experience racial discrimination, compared to immigrants in the age range 18 to 29.

Table 4. Binary Logistic Regression Model on Self-Rated Mental Health: Moderating Impact of Coping Factors, Group Membership Factors

Asian Immigrants (N= 2095) from NLAAS (Weighted analysis)			
Variables	Coeff. (S.E)	Odds Ratio	95% CI
Racial Discrimination			
Log of Everyday Discrimination	-9.979*** (.000)	.000	[-15.964, -3.995]
Racial Discrimination (Low)			
High	.462 (2.46)	1.588	[-2.665, 3.589]
Coping Factors			
Racial Identity (Low)			
Moderate	.108 (1.816)	1.114	[-3.177, 3.392]
High	.406 (2.749)	2.578	[-3.053, 3.965]
Social Support	-.285** (.086)	.752	
Group Membership Factors			
Immigrant Generational Status (1 st gen)			[-.515, -.055]
2 nd gen	-1.448 (.427)	.235	[-5.105, 2.208]
Ethnic subgroup (Vietnamese)			
Filipino	1.902 (8.763)	6.701	[-.732, 4.536]
Chinese	-1.119 (.321)	.327	[-3.099, .860]
All other	1.475 (6.505)	4.371	[-1.522, 4.472]
Age (18-29)			
30-44	-2.177 (.167)	.113	[-5.145, .792]
45-64	-1.728 (.233)	.178	[-4.370, .913]
65 and older	-2.412 (.175)	.090	[-6.340, 1.515]
Individual Characteristics			
Gender (Male)			
Female	.438** (.252)	1.549	[.110, .766]
Marital Status (Married)			
Divorced/Separated/Widowed	.044 (.355)	1.045	[-.639, .728]
Never Married	-.281 (.152)	.755	[-.687, .124]
Years of Education (0-11 yrs.)			
12 yrs.	.158 (.342)	1.171	[-.430, .746]
12-15 yrs.	.485 (.316)	1.624	[.093, .877]
16 or more years	.802**** (.430)	2.230	[.414, 1.190]
Household Income (≤\$14,999)			
\$15,000 - \$34,999.99	-.047 (.223)	.954	[-.518, .424]
\$35,000 - \$74,999.99	.145 (.238)	1.156	[-.269, .560]
\$75,000 or more	.040 (.194)	1.041	[-.334, .415]
Employment Status (Unemployed)			
Employed	-.575*** (.093)	.563	[-.907, -.243]
Not in labor force	-.233 (.142)	.792	[-.593, .128]
Coping Factors			
(Interaction Term)			
Everyday * Social Support	.364**** (.137)	1.439	[.172, .556]
Everyday * racial identity (Low)			
Everyday * racial identity (Moderate)	.801 (2.755)	2.230	[-1.691, 3.293]
Everyday * racial identity (High)	.401 (2.460)	1.569	[-2.708, 3.609]
Everyday * immigrant generational status (1 st gen)			
2 nd gen	.631 (2.444)	1.879	[-1.989, 3.250]
Everyday * ethnic subgroup (Vietnamese)			
Everyday * ethnic subgroup (Filipino)	-2.279 (.142)	.102	[-5.079, .520]
Everyday * ethnic subgroup (Chinese)	1.358 (4.566)	3.888	[-1.007, 3.723]
Everyday * ethnic subgroup (All other)	-.988 (.579)	.372	[-4.120, 2.143]
Everyday * age (18-29)			
Everyday * age (30-44)	.759 (2.780)	2.137	[-1.821, 3.340]
Everyday * age (45-64)	.426 (1.850)	1.531	[-2.008, 2.860]

Table 4 (cont.)

Everyday * age (65-95)	2.140 (13.865)	8.500	[-1.145, 5.425]
Racial * Social Support	-.047 (.044)	.954	[-.140, .047]
Racial * racial identity (Low)			
Racial * racial identity (Moderate)	-.717* (.187)	.488	[-1.486, .053]
Racial * racial identity (High)	-.650 (.259)	.522	[-1.650, .350]
Racial * immigrant generational status (1 st gen) (2nd gen)	.211 (.633)	1.235	[-.821, 1.244]
Racial * ethnic subgroup (Vietnamese)			
Racial * ethnic subgroup (Filipino)	.965* (1.475)	2.626	[-.166, 2.097]
Racial* ethnic subgroup (Chinese)	-.429 (.306)	.651	[-1.375, .518]
Racial* ethnic subgroup (All other)	.026 (.474)	1.026	[-.904, .956]
Racial * age (10s and 20s)			
Racial * age (30s)	.612* (.591)	1.843	[-.034, 1.257]
Racial * age (40s)	.510 (.596)	1.665	[-.211, 1.230]
Racial * age (50s and up)	-.968 (.258)	.380	[-2.340, .402]
F(df)	9.49 (45)	.0435	[2.093, 17.985]

Note. Categories in parentheses are reference groups.

*p≤.1. **p≤.05. ***p≤.01 ****p≤.001

Relationship between Racial Discrimination and Perceived Racial Discrimination with Psychological Distress



Figure 5. Analytical model for the first OLS regression to test the main effect

Table 5 presents the findings from the Ordinary Least Squares (OLS) regression analysis of racial discrimination, everyday discrimination, coping factors, and group membership factors on psychological distress. This analysis was conducted to answer the first research question: “Does perceived racial discrimination effect Asian immigrants’ psychological well-being (i.e., psychological stress and self-rated mental health)?” After controlling for respondents’ demographic characteristics, such as household income, level of education, and marital status, the full regression model achieved significance. Experiencing everyday discrimination was strongly associated with immigrants’ level of psychological distress.

Consistent with the first OLS regression model on Table 4, respondents’ individual characteristics, including gender, household income, marital status, ethnic subgroup, and immigrants’ generational status, were contributing factors to the probability of having high or low psychological distress. The consistency between two models indicates that the patterns between study variables were same. Female immigrants were less likely to experience higher psychological distress ($B = -.668, p \leq .01; 95\% \text{ CI } [-1.071 - -.265]$). In terms of annual household income, those who earn more than \$75,000 were less likely to have a higher psychological distress ($B = -.764, p \leq .05; 95\% \text{ CI } [-1.528 - .000]$), compared to those who earn less than \$15,000.

Similarly, U.S. born immigrants were more likely to experience high levels of psychological distress ($B = .477, p \leq .05$; 95% CI [.050– .903]) than foreign-born immigrants. In terms of immigrants' ethnic subgroup, Chinese immigrants ($B = .822, p \leq .001$; 95% CI [.415 – 1.229]) were more likely to experience higher psychological distress compared to Vietnamese immigrants. Regarding marital status, immigrants who were never married ($B = 1.100, p \leq .01$; 95% CI [.354 – 1.847]) were more likely to experience high psychological distress than married respondents.

Among the coping factors, social support was the only significant factor. Those with higher social support were less likely to experience high psychological distress ($B = -.107, p \leq .001$; 95% CI [-.158– -.055]). Other factors, such as immigrants' ages, years of education, employment statuses, and racial identities, were not significant in this model.

Table 5. Ordinary Least Square (OLS) Regression Model on Psychological Stress

Asian Immigrants (N= 2095) from NLAAS (Weighted analysis)			
Variables	B	S.E	95% CI
Racial Discrimination			
Log of Everyday Discrimination	5.230****	(.663)	[3.894, 6.566]
Racial Discrimination (Low)			
High	.306	(.173)	[-.042, .654]
Coping Factors			
Racial Identity (Low)			
Moderate	-.222	(.264)	[-.754, .309]
High	-.234	(.340)	[-.919, .452]
Social Support	-.107****	(.026)	[-.158, -.055]
Group Membership Factors			
Immigrant Generational Status (1 st gen)			
2 nd gen	.477**	(.212)	[.050, .903]
Ethnic subgroup (Vietnamese)			
Filipino	.079	(.215)	[-.355, .512]
Chinese	.822****	(.202)	[.415, 1.229]
All other	.271	(.264)	[-.314, .749]
Age (18-29)			
30-44	.580	(.355)	[-.136, 1.300]
45-64	.539	(.331)	[-.128, 1.207]
65 and older	.326	(.368)	[-.415, 1.066]
Individual Characteristics			
Gender (Male)	-.668***	(.200)	[-1.071, -.265]
Female			
Marital Status (Married)			
Divorced/Separated/Widowed	.082	(.350)	[-.623, .786]
Never Married	1.101***	(.371)	[.354, 1.847]
Years of Education (0-11 yrs.)			
12 yrs.	.096	(.298)	[-.505, .696]
12-15 yrs.	.374	(.236)	[-.100, .849]
16 or more years	.092	(.231)	[-.372, .556]
Household Income (< \$14,999)			
\$15,000 - \$34,999.99	-.528	(.378)	[-1.290, .234]
\$35,000 - \$74,999.99	-.441	(.344)	[-1.133, .252]
\$75,000 or more	-.764**	(.379)	[-1.528, .000]
Employment Status (Unemployed)			
Employed	.178	(.373)	[-.573, .930]
Not in labor force	-.048	(.239)	[-.530, .434]
F (df)	0.1210 (45)	.0000	

Note. Categories in parentheses are reference groups.

*p≤.1. **p≤.05. ***p≤.01 ****p≤.001

Moderating Impact of Coping Factors and Group Membership on the Relationships between Perceived Racial Discrimination and Psychological Distress

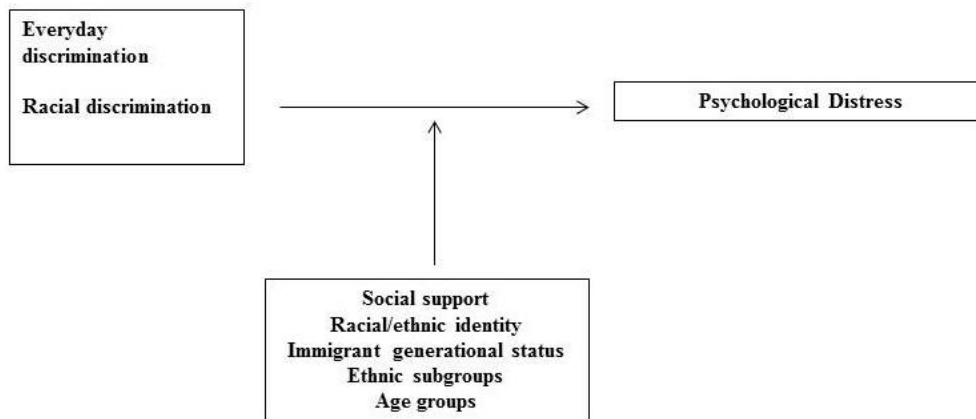


Figure 6. Analytical model for the second OLS regression to test the moderating effects

This analysis was conducted to answer research questions 2 to 6: “Do coping (social support and racial/ethnic identity) and group membership (immigrants’ generational status, ethnic subgroup and age) moderate the relationship between perceived racial discrimination and psychological well-being among Asian immigrants?” After controlling for respondents’ demographic characteristics, such as household income, level of education, and marital status, the full regression model achieved marginal significance. Racial/ethnic identity, age, and ethnic subgroup moderated the association between Asian immigrants’ experiences of racial discrimination and the level of psychological distress. Consistent with the previous model, there were significant relationships revealed between experiencing two types of racial discrimination and the level of psychological distress.

Respondents’ individual characteristics, including gender, household income, and marital status were contributing factors to the level of psychological distress. Female immigrants were more likely to experience lower levels of psychological distress compared to male immigrants ($B = .196, p \leq .01; 95\% \text{ CI } [-1.035 - -.246]$). In terms of the household income, those who were

earning more than \$75,000 ($B = -.726, p \leq .05; 95\% \text{ CI } [-1.375 - -.077]$) were more likely to experience low psychological distress compared to those whose income was below \$15,000. In addition, those who were never married ($B = 1.089, p \leq .05; 95\% \text{ CI } [.407 - 1.771]$) were more likely to experience higher psychological distress than those who were married.

None of the group membership and coping variables' main effects contributed to the model significantly. However, immigrants' racial/ethnic identity, Filipino ethnicity and age, showed significant moderating effects when interacted with racial discrimination. Immigrants with high racial/ethnic identity ($B = .939, p \leq .1; 95\% \text{ CI } [-.031 - 1.909]$) were more likely to be distressed when they experienced racial discrimination than immigrants with low racial/ethnic identity. Compared to Vietnamese immigrants, racial discrimination has less negative impact on psychological distress among Filipino immigrants ($B = -1.304, p \leq .05; 95\% \text{ CI } [-2.296 - -.312]$). Similarly, racial discrimination has less negative impact on psychological distress among immigrants in the age range of 45 to 64, compared to those between 18 to 29 years old ($B = -.938, p \leq .1; 95\% \text{ CI } [-2.042 - -.312]$).

Table 6. Ordinary Least Squares (OLS) Regression on Psychological Distress: Moderating Impact of Coping Factors and Group Membership Factors

Asian Immigrants (N= 2095) from NLAAS (Weighted analysis)			
Variables	B	(S.E)	95% CI
Racial Discrimination			
Log of Everyday Discrimination	4.827	(5.934)	[-7.127, 16.780]
Racial Discrimination (Low)			
High	2.107	(1.41)	[-.734, 4.948]
Coping Factors			
Racial Identity (Low)			
Moderate	.460	(1.186)	[-3.278, 4.197]
High	.997	(2.428)	[-3.894, 5.888]
Social Support	.162	(.227)	[-.295, .618]
Group Membership Factors			
Immigrant Generational Status (1 st gen)			
2 nd gen	-1.430	(1.832)	[-5.120, 2.260]
Ethnic subgroup (Vietnamese)			
Filipino	-1.602	(1.896)	[-5.421, 2.218]
Chinese	1.490	(1.740)	[-2.015, 4.996]
All other	-2.620	(2.576)	[-7.809, 2.568]
Age (18-29)			
30-44	1.190	(1.656)	[-2.145, 4.524]
45-64	.272	(2.081)	[-3.920, 4.464]
65 and older	1.283	(2.626)	[-4.007, 6.573]
Individual Characteristics			
Gender (Male)			
Female	.196***	(-.641)	[-1.035, -.246]
Marital Status (Married)			
Divorced/Separated/Widowed	.037	(.335)	[-.638, .712]
Never Married	1.089***	(.339)	[.407, 1.771]
Years of Education (0-11 yrs.)			
12 yrs.	-.033	(.289)	[-.616, .550]
12-15 yrs.	.285	(.239)	[-.197, .766]
16 or more years	.029	(.235)	[-.444, .503]
Household Income (< \$14,999)			
\$15,000 - \$34,999.99	-.347	(.347)	[-1.136, .261]
\$35,000 - \$74,999.99	-.378	(.301)	[-.985, .228]
\$75,000 or more	-.726**	(.322)	[-1.375, -.077]
Employment Status (Unemployed)			
Employed	.163	(.341)	[-.523, .850]
Not in labor force	-.077	(.232)	[-.544, .390]
Coping Factors			
(Interaction Term)			
Everyday * Social Support	-1.196	(.230)	[-.658, .267]
Everyday * racial identity (Low)			
Everyday * racial identity (Moderate)	-.822	(1.441)	[-3.724, 2.080]
Everyday * racial identity (High)	-2.355	(2.312)	[-7.013, 2.302]
Everyday * immigrant (1 st gen)			
2 nd gen	2.036	(1.477)	[-.939, 5.010]
Everyday * ethnic subgroup (Vietnamese)			
Everyday * ethnic subgroup (Filipino)	3.156	(1.981)	[-.834, 7.147]
Everyday * ethnic subgroup (Chinese)	.434	(1.838)	[-3.267, 4.136]
Everyday * ethnic subgroup (All other)	3.268	(2.620)	[-2.009, 8.545]
Everyday * age (10s and 20s)			
Everyday * age (30s)	.191	(1.460)	[-2.750, 3.131]
Everyday * age (40s)	1.539	(1.643)	[-1.771, 4.849]
Everyday * age (50s and up)	.904	(1.372)	[-5.230, 3.329]
Racial * Social Support	-.024	(.049)	[-.123, .076]

Table 6 (Cont.)

Racial * racial identity (Low)			
Racial * racial identity (Moderate)	.206	(.466)	[-.733, 1.145]
Racial * racial identity (High)	.939*	(.482)	[-.031, 1.909]
Racial * immigrant (1 st gen)			
2 nd gen	-.331	(.338)	[-1.012, .349]
Racial * ethnic subgroup (Vietnamese)			
Racial * ethnic subgroup (Filipino)	-1.304**	(.492)	[-2.296, -.312]
Racial* ethnic subgroup (Chinese)	-.714	(.577)	[-1.877, .448]
Racial* ethnic subgroup (All other)	-.653	(.580)	[-1.821, .515]
Racial * age (10s and 20s)			
Racial * age (30s)	-.536	(.501)	[-1.544, .471]
Racial * age (40s)	-.938*	(.548)	[-2.042, .165]
Racial * age (50s and up)	.115	(.581)	[-1.054, 1.284]
ΔR^2 (df)	.134 (45)	.0521	[-10.150, 15.820]

Note. Categories in parentheses are reference groups.

*p≤.1. **p≤.05. ***p≤.01 ****p≤.001

Summary of Results

Regarding the first research question, which examined the association between perceived racial discrimination and immigrants' psychological well-being, the findings were consistent for the first and second outcome variables which were immigrants' self-rated mental health and psychological distress. For the first psychological well-being outcome (Tables 3 and 4)—immigrants' self-rated mental health—indicated that the more that they experience racial discrimination (everyday discrimination in model 1, and racial discrimination in model 2, respectively), they were less likely to record a good self-rated mental health status. For another psychological well-being outcome, which was psychological distress (Tables 5 and 6), findings indicated that the more racial discrimination (everyday discrimination in model 5 only) that the immigrants experience, the more likely their level of psychological distress was to be higher.

Table 7. Research Questions and Results

	Research Question	Hypothesis supported (YES/NO)
Q1	Does perceived racial discrimination impact Asian immigrants' psychological well-being?	YES
Q2	Does social support moderate the relationship between perceived racial discrimination and Asian immigrants' psychological well-being?	YES
Q3	Does racial/ethnic identity moderate the relationship between perceived discrimination and psychological well-being among Asian immigrants?	YES (but in an opposite way)
Q4	Does immigrants' generational status moderate the relationship between perceived discrimination and psychological well-being among Asian immigrants?	NO
Q5	Does age moderate the relationship between perceived racial discrimination and psychological well-being among Asian immigrants?	YES
Q6	Does an ethnic subgroup moderate the relationship between perceived racial discrimination and mental health status among Asian immigrants?	YES

Moreover, the second research question examined the moderating impact of social support in the relationship between perceived racial discrimination and psychological well-being outcomes. For the main effect, having a higher social support was associated with having a good self-rated mental health among the immigrants (Table 3). In terms of the moderating effect of the coping variables, having a higher social support was associated with having a good self-rated mental health, even if the immigrants experience everyday discrimination (Table 4). For the second outcome variable—psychological distress—the main effect of social support was significant, but it had no moderating impact (Tables 5 and 6).

Regarding the third research question, which examined the moderating impact of racial/ethnic identity, most of the findings were not significant. The only significant finding was that immigrants with high racial/ethnic identity were more likely to have higher psychological stress than those with low racial/ethnic identity when faced with racial discrimination (Table 6).

The fourth research question examined the moderating impact of immigrants' generational status in the relationship between perceived racial discrimination and psychological well-being outcomes. For the main effect, children of immigrants were more likely to experience higher psychological distress than foreign-born immigrants (Table 5). However, there was no significant moderating impact (Table 6). Further, there was no significant main or moderating effect in the association between two different types of racial discriminations and self-rated mental health outcomes (Tables 3 and 4).

For the fifth research question, which examined the moderating impact of an ethnic subgroup, Filipino immigrants were more likely to have a good self-rated mental health than Vietnamese immigrants (Table 3). Chinese immigrants were also more likely to experience higher psychological distress than Vietnamese immigrants (Table 5). Filipino immigrants were

less likely to experience higher psychological distress compared to Vietnamese immigrants, even if when they were faced with racial discrimination (Table 6). This means that the moderating impact for the ethnic subgroup was found in this particular association. However, there was no significant moderating impact for the ethnic subgroup in the particular relationship between perceived racial discrimination and self-rated mental health (Tables 3 and 4).

For the sixth research question, immigrants' ages were examined as a moderating factor. There were no significant findings in the association between two different racial discriminations and self-rated mental health (Tables 3 and 4). The only significant finding was in between racial discrimination and psychological distress (Table 6). Immigrants in the age range of 45 to 64 were less likely to be distressed than the immigrants in the age range of 18 to 29, even if they were faced with racial discrimination.

Consistently throughout all models, there were few significant control variables. These included immigrants' individual characteristics, such as gender, years of education, employment status, and household income. Female immigrants were more likely to have good self-rated mental health than male immigrants (Tables 3 and 4). They were also more likely to have a lower psychological distress than male immigrants (Tables 5 and 6). Immigrants with more years of education (12 to 15 years and 16 or more years) were more likely to have good self-rated mental health than the immigrants with fewer (0 to 11 years) years of education (Table 3). Nonetheless, immigrants, who were employed, or not in labor force, were less likely to have a good self-rated mental health than the ones who were unemployed (Tables 3 and 4). With regard to household income, those who earn more than \$75,000 were more likely to experience lower psychological distress than the immigrants whose income is lower (< \$15,000) (Tables 5 and 6).

For the moderating impact of coping and group membership factors, there were several significant findings. First, having more social support seemed to protect immigrants from having poor mental health. This was true for both self-rated mental health and psychological distress, even if they were experiencing everyday discrimination (Tables 4 and 6). Second, Filipino immigrants were less likely to be distressed compared to Vietnamese immigrants, even when they were faced with racial discrimination. Third, immigrants in the age range of 45 to 64 were less likely to have higher psychological distress than immigrants in the age range of 18 to 29, even if they were faced with racial discrimination (Table 6). Fourth, immigrants with high racial/ethnic identity were more likely to have higher psychological distress than the ones with low racial/ethnic identity when they were faced with racial discrimination (Table 6). In contrast, immigrants' generational status did not have any significant moderating impact in the association between the racial discrimination and the psychological well-being of Asian immigrants (Tables 4 and 6).

In conclusion, this study successfully unveiled the vulnerable side of Asian immigrants' psychological well-being despite of model minority myth. The current study first explored the relationship between perceived racial discrimination and Asian immigrants' psychological well-being and found its detrimental impact consistently throughout different analytical models. Also, it also explored the moderating impact of two coping factors and three group membership factors. Not all of the coping factors and group membership factors showed significant moderating impacts. Moreover, this study found significant protective factors for Asian immigrants even if they are faced with racial discrimination.

CHAPTER 5

DISCUSSION AND IMPLICATIONS

This chapter presents a discussion of the main findings and their implications for social work practice, policy, and future research. One of the major findings is that racial/ethnic identity did not protect Asian immigrants from the detrimental effects of perceived racial discrimination. Also, the limitations of the current study and suggestions for future research are presented.

Multivariate Results of the Psychological Well-Being of Asian Immigrants

Effects of Perceived Racial Discriminations on Psychological Well-Being

This study examined whether experiencing perceived racial discrimination had a negative impact on Asian immigrants' psychological wellbeing. In short, my results found that it did. I used two different measurements—everyday discrimination and racial discrimination—in order to measure the same phenomenon. Although there were slight differences between the two scales, they were consistent in showing the same patterns. This means that the two scales were measuring the same phenomenon, which is racial discrimination. The results from my analyses indicated that experiencing racial discrimination was negatively associated with psychological well-being. Asian immigrants were less likely to have a good self-rated mental health and more likely to be psychologically distressed when they experienced a perceived racial discrimination.

This finding about the detrimental effects of racial discrimination is consistent with previous studies that examined the negative impact of racism on mental and/or physical health (Pascoe & Richman 2009; Pierterse, Todd, Neville, & Carter, 2011; Syed & Juan, 2012). Two of these studies were meta-analyses, which examined the association between perceived racial discrimination and psychological distress or other mental health indicators. Pascoe and Richman (2009) analyzed 134 studies across different racial/ethnic groups and found that racial minority

individuals, who were discriminated against, were more distressed. Piertese et al. (2011) considered 66 studies conducted on Black Americans and found the same association. Syed and Juan (2012) looked at the impact of discrimination on a sample of Vietnamese, Chinese, and Filipino immigrants using the NLASS data set. They found that racial discrimination was negatively associated with psychological distress.

Although the detrimental effects of racial discrimination on mental health are well established, this study adds to the existing literature by examining self-rated mental health as a proxy measure for well-being. Previous studies use depression scales as the primary mental health marker (Tummala-Nara, Alegria, & Chen, 2012). However, the Self-Rated Mental Health (SRMH) scale is a simple and reliable way to measure individual's current psychological well-being. It also represents one's overall mental health rather than showing pathology only.

SRMH still needs to be tested for its reliability across different ethnic and racial groups, as well as its relationship with future clinical mental illness. Moreover, since its association with other mental health scales is found, SRMH remains a reliable and simple measure for gauging one's current mental health status. Using SRMH was a unique approach, since relying solely on clinical mental illness, such as depression or anxiety, cannot fully represent one's current psychological well-being.

Buffering Effects of Coping Factors Against Racial Discrimination

Also, I tested the ways that social support and racial/ethnic identity buffer the detrimental effects of perceived racial discrimination, finding opposite results. Social support protected individuals from detrimental effects of perceived racial discrimination, but racial/ethnic identity did not.

Buffering Effect of Social Support

I found that Asian immigrants with more social support were more likely to have a better self-rated mental health, even if they experience racial discrimination, suggesting that social support seems to act as a safeguard against the negative affect of racial discrimination. This finding is consistent with previous findings (Noh & Kaspar, 2003; Mossakowski & Zhang, 2014). For example, one study found that Korean immigrants, who were well connected with their ethnic community, used effective forms of coping and were less depressed. Also, emotional support from family buffered the stress of perceived racial discrimination (Mossakowski & Zhang, 2014) among Asian immigrants.

Complex Effect of Racial/Ethnic Identity

My analyses indicated that racial/ethnic identity also moderated the association between racial discrimination and psychological distress. However, the effect was in the opposite direction from what was expected. Originally, I hypothesized that immigrants with higher racial/ethnic identity will be protected from the detrimental effects of racial discrimination. Instead, I found that immigrants with higher racial/ethnic identity were more likely to experience higher psychological distress when they faced discriminated.

Although counterintuitive, a number of theoretic rationales support this finding. First, the role of racial/ethnic identity as a protective factor has been long debated (Park, Schwartz, Lee, & Kim, 2013). Some scholars argue that because racial/ethnic identity provides a sense of belonging and a sense of pride, an identity could work as a coping resource against racial discrimination (Phinney, 1991). However, a heightened racial/ethnic identity might also intensify the stress that comes from racial discrimination. If someone strongly identifies with their racial group, this identification may emphasize that they are different from the dominant group (Phinney, 1991).

Part of the challenge of untangling the positive and negative effects of identity on racial discrimination rests on the fact that racial/ethnic identity is determined by multiple factors and may change overtime. Yinger (1986) theorized that the strength of ethnic identity could be determined by the age of someone's immigration, social environment, and experiences of racial discrimination. Moreover, Water (1994) emphasizes parental social networks, family structure, and experience of migration itself as determinants of the identity formation of black immigrant youth. One demographer underscored the fact that among Hispanics, racial identity might be more closely related to socioeconomic status (SES) and revealing of the extent to which the person feels she belongs to mainstream culture (Tafoya, 2004). Therefore, the racial and ethnic identity of immigrants, arguably, rests on other factors besides group pride, including economic opportunities and social status. For example, Waters (1994) found that some children of Jamaican immigrants shifted their identities between being African American and Jamaican. These youth were more successful than the other groups whom held strong and singular ethnic identities.

In fact, previous studies, which explored the protective role of racial/ethnic identity, yielded mixed results. Some studies found a significant association between higher racial/ethnic identity and better mental health outcomes (Mossawkowski, 2003; Choi, Lewis, Harwood, Mendenhall, & Brown, in press). Mossakowski (2003) found that Filipino immigrants with a higher ethnic identity were buffered from being depressed, even if they experience racial discrimination. In another study, Choi and colleagues (in press) found that ethnic identity protected Asian American college students from being depressed when they experienced racial microaggressions. However, other studies found mixed results: worse mental health outcomes were associated with high levels of racial identity, for instance. Yoo and Lee (2008) found that

Asian American college students with higher ethnic identity experienced more negative affect when asked to imagine various scenarios of racial discrimination. Post hoc analyses found that ethnic identity is more meaningful for U.S.-born Asian Americans than it is for foreign-born Asian immigrants. This means that U.S.-born Asians are more vulnerable to psychological distress when encountering racial discrimination. Brondolo et al. (2008) conducted a selective critical review on studies of the effects of racism and related coping factors. Their study also produced mixed findings from previous studies on the role of ethnic identity. Further, Scott, Jr. (2003b) found that African American adolescents' racial identity did not play any role when they decide on a coping strategy against racial discrimination.

Since racial/ethnic identity is a complicated concept, it is important to unpack the process carefully. Future studies can adopt different methods to explore the complicated processes of ethnic/racial identity. For instance, qualitative studies would be a solid approach to exploring this phenomenon.

Effects of Immigrants' Generational Status, Ethnic Subgroup, and Age

Effects of Immigrants' Generational Status

I examined the effect of group membership, which was outside the person's control: (a) immigrants' generational status, (b) ethnic subgroup, and (c) age. Findings indicate that generational status did not show any moderating effect.

Scholars of immigration found that the health and mental health status of immigrants deteriorates in later generations. Cerventes, Padilla, Napper, and Goldbach (2013) found that among Hispanic adolescents, acculturative stress was the highest among foreign-born immigrant youth, when compared to second-generation immigrants. However, the actual mental health symptoms were higher in the later generation immigrants. Cerventes et al. (2013) speculate that

the values that first-generation immigrants hold, such as traditional family values, may buffer them from being stressed. The current study also found that U.S.-born children of immigrants were more likely to experience greater psychological distress than foreign-born Asian immigrants.

Relatedly, the immigrant health paradox asserts that second and later generation immigrants' health deteriorates. However, recent studies provide caveats for such over-generalizations. John et al., (2012) studied Asian respondents using NLASS data. Their study found that, in addition to immigrants' generational status, other related factors, such as SES, English fluency, social support, and discrimination affected immigrants' mental health outcomes. Therefore, immigrant scholars suggest exploring multiple factors at the same time in order to examine the relationship between generational status and immigrants' mental and physical health. For example, immigrants' generational status might be an influential factor for one's level of racial identity, which works as a moderator against discrimination. However, generational status itself may not be a moderator.

Ethnic Subgroups

Among the Asian ethnic subgroups I studied, Filipino immigrants in my sample had better psychological well-being. Compared to those with Vietnamese ethnicity, Filipino immigrants had a significant buffer against racial discrimination. More specifically, Filipino immigrants' self-rated mental health was better than the Vietnamese immigrants, and they were more likely to experience lower psychological distress, even if they were faced with racial discrimination. This result was contradictory to previous studies that compared Filipino immigrants with Vietnamese and Chinese immigrants. Previous studies found that Filipino

immigrants are exposed to higher rates of racial discrimination, and it is for this reason that they had a poor mental health status (Xie & Kimberly, 2013; Li, 2014).

There could be multiple reasons why these findings were not replicated in the current study. For instance, according to the bivariate analysis, 93.34% of Filipino immigrants reported that they have a high level of social support when 72.35% of Vietnamese immigrants reported so. Also, Filipino immigrants' level of education and income were higher than the Vietnamese immigrants. Thus, Filipino ethnicity worked as a buffer against racial discrimination not because of ethnicity itself but perhaps because ethnic membership coincided with higher levels of social support and SES.

Age

As mentioned in the previous section, young adulthood is a period of transitions, and members of this sample experience identity development. This is also the age group when people may develop mental health problems (World Health Organization, n.d). That is why I hypothesized that immigrants in young adulthood will have worse psychological well-being than other age groups. I found that immigrants' age moderates the relationship between racial discrimination and psychological well-being. Immigrants in the age range of 30 to 44 were more likely to have a good self-rated mental health than the young adult immigrants (ages 18 to 29) when faced with racial discrimination. Similarly, middle-aged immigrants (ages 45 to 64) were less likely to experience higher psychological distress, even if they were faced with racial discrimination, compared to young adult immigrants. In other words, young adult immigrants' psychological well-being was the weakest among all the age groups. One of the reasons could be due to the fact that young adulthood is a period when individuals are going through identity

development. Therefore, being exposed to racial discrimination can have more detrimental effects on them than older individuals.

Limitations

There are several limitations of the current study related to the nature of the dataset. First, NLASS does not have some pertinent variables. For instance, it does not have any information about the racial composition of the respondents' environment, which can be informative. The current study does not have such information. Also, NLAAS is cross-sectional data, which only provides a snapshot of the phenomenon. It does not provide any longitudinal information. Studying the long-term effect of perceived racial discrimination on individuals' psychological well-being will be intriguing.

Second, few variables in NLASS have measurement issues. To begin, racial/ethnic identity is a complicated concept to be measured quantitatively. There is no single well-known scale to measure individuals' racial/ethnic identity, and different studies utilized various scales. Therefore, the reliability and validity of measuring this concept is uncertain. NLASS used a scale composed of 4 items, asking respondents' about closeness to one's own ethnicity and race. However, it is unclear whether it was valid for the study sample.

Perceived racial discrimination also has a measurement issue. It was measured by two different scales. The two scales capture the frequency and types of racial discrimination that the respondents experience in their daily lives, but it has limitations. For instance, the two scales do not have any information on the factors that the life course perspective suggests: timing of discrimination, cohort, or the discriminatory events that have latent effects on a person's life (Gee, Walsemann, & Brondolo, 2012). If individuals experience racism at an earlier age, it might have longer-lasting negative effects. Scholars who study racism also recommend capturing

information, such as the respondents' historical events or cohort. However, NLASS did not capture such information due to the fact that it is a wide-scale quantitative survey.

Finally, NLASS' sample has limitations. Only three ancestries are indicated—Vietnamese, Filipino, and Chinese—but other Asian nationalities were lumped into “Other.” Koreans and Indians are large Asian immigrant ethnic groups in the U.S., and they are very distinct groups. However, their responses cannot be distinguished in this study. Furthermore, NLASS' Asian sample does not have any South Asians although they are a fast-growing population in the U.S. (Asian American Federation, 2012). South Asian immigrants come from countries such as Bangladesh, Bhutan, Indian, Nepal, Pakistan, and Sri Lanka. Among various South Asian countries, only India was included in the dataset.

Implications

Policy Implications

The current study indicates the detrimental impact of two types of perceived racial discrimination on Asian immigrants' psychological well-being. Those who experience more racial discrimination were more likely to be distressed and report poor self-rated mental health. Therefore, this finding asserts that the incidents of racial discrimination should be decreased.

Although increasing diversity in a given setting does not guarantee the decreased incidents of racial discrimination, it can be a first step. When scholars, who study the mental health of racial minority individuals, discuss how to reduce the incidents of racial discrimination, macro-and mezzo-level policy and practices are often highlighted. Macro-level policy targets broader contexts, such as national level policies. Mezzo-level policy targets more localized contexts, such as organizational and institutional contexts. A strong example of macro-level policy that impacts the level of diversity in an educational institution or work place is

Affirmative Action. Affirmative Action aims to ensure that public institutions are representing the populations that they serve (Anderson, Rawls, & Thurman, 2008). This social policy was created based on a belief that increasing diversity will bring social and educational benefits by creating racial minority role models and leaders (Hinrichs, 2012). Affirmative Action is related to social work practice since it influences the racial composition of a given educational setting. Further, racial composition is related to racial minority students' learning experiences on campus.

In addition, there are various national level policies that aim to promote diversity in educational or professional domains by cultivating minority scholars and professionals. For example, the Council of Social Work Education (CSWE) offers a fellowship for minority graduate students: the Minority Fellowship Program (MFP). The purpose of this program is to increase the number of racial/ethnic minority professionals who are trained to serve, traditionally underrepresented, populations with mental health and substance abuse problems (Council on Social Work Education, n.d).

Since simply increasing diversity does not automatically guarantee decreased levels of racial discrimination, further social work intervention is needed. At the mezzo-level social work, there are diversity-related interventions (Halferty & Clarke, 2009; Denson, 2009), which are aimed to enhance diversity in a given environment. Such aims of these interventions are to reduce racial bias and improve interracial interactions. These kinds of social work practice can take place through various forms, such as community education (Simpson and Yinger, 1985) or discrimination prevention (Potocky-Tripodi, 2002).

At the mezzo-level, institutions ascribe to particular policies and programs to promote diversity and to decrease incidents of exclusion. Usually, such offices are referred to as the Office of Diversity and Inclusion (Office of Inclusion and Intercultural Relations, n.d). This

office provides various supportive programs, interactive classes, and workshops that provide tools. Such efforts aim to encourage and develop underrepresented students' life skills in order to thrive in a university and contribute to a diverse society. Another primary goal of this office is to decrease the gap between graduation rates among racial underrepresented students and white students.

Further, universities typically have counseling centers for their students' mental health needs. Often, universities provide outreach programs to serve specific groups of students with vulnerabilities, such as the LGBTQ community, international students, and first-generation students. The outreach program for Asian immigrant students addresses specific needs and provide resources on campus, community, or online (University of Illinois at Urbana Champaign Counseling Center, n.d).

Practice Implications

The current study's findings have several implications for micro-level social work practice. First, the current study found a negative association between perceived racial discrimination and worsened psychological well-being among Asian immigrants. Therefore, social workers should take this finding into consideration when providing services for this population.

Second, one of the general implications was that social support does play an important role for Asian immigrants. Therefore, interventions can help strengthen this aspect. Social work services can encourage Asian immigrants to obtain social support since it clearly showed a buffering effect against perceived racial discrimination (Brondolo et al., 2009; Noh & Kaspar ,2003). A common support system for Asian immigrants is religious involvement. Such involvement revealed both positive and negative effects on Asian immigrants' mental health status (Ai, Huang,

Bjorck, & Appel, 2013). In other cases, Asian immigrants obtain social support from cultural centers or online communities. Social workers might suggest different ways of obtaining social support for Asian immigrants.

Additionally, social workers can create support groups where Asian immigrants among socialize and create support systems.

Third, although racial/ethnic identity yielded unexpected findings, it has an important practice implication. It is commonly believed that having an achieved (or high) racial/ethnic identity will work as a buffer against perceived racial discrimination (Phinney, 1996). However, the current study found an opposite phenomenon. Indeed, scholars continue to debate the effects of racial/ethnic identity have (Park, Schwartz, Lee, & Kim, 2013). In the current study, Asian immigrants with higher racial/ethnic identity recognition were worse than others when they experienced racial discrimination. This finding is unexpected, but it may be reasoned that having a high racial/ethnic identity may trigger heightened reactions toward racism. Therefore, encouraging individuals to develop racial/ethnic identity may not be a final solution. More research is needed on this topic, but if racial/ethnic identity reveals itself as a topic during micro practice, social workers may approach with greater sensitivity. Since cultural competency is a highly valued skill for social workers, the National Association of Social Workers (2016) recommended standards and indicators for cultural competency. As such, racial/ethnic identity may form part of social work education to increase cultural competency. More discussion is needed on this topic. How to approach the topic of racial/ethnic identity remains a highly relevant issue for today's social workers.

Another important finding from the current study regards the age and ethnic subgroup. Immigrants in young adulthood were the most vulnerable age group, and Vietnamese immigrants

were more vulnerable than Filipino or Chinese immigrants. Thus, there may be interventions targeting specific ethnic and age groups, such as Vietnamese young adults. For instance, social work services targeting this group can be conducted at on-campus settings in order to help young immigrants cope against perceived racial discrimination. For instance, some universities already have community outreach program for certain groups with mental health vulnerabilities. In the same token, social work intervention or prevention targeting Vietnamese young adults may yield positive effects.

Research Implications

1. Measurement issues

First, perceived racial discrimination should be measured through more comprehensive and sensitive scales (Atkins, 2014). Scales measuring racism should be tailored for individuals' developmental stages and the timing of racial discrimination (Gee, Walsemann, & Brondolo, 2012). Rubbie and Babbie (2009) suggest that researchers should not assume that the instrument, which was effective in one ethnic group, will yield valid information when studying different ethnic groups. However, the current study used the same scales for both Asian and Latino immigrants. If researchers utilized more tailored scales to capture the nuances of Asian immigrants' experiences of perceived racial discrimination, they may yield results that are more valid.

2. Variety of target population and intersectionality of racial discrimination

Although the current study's target group was Asian immigrants in the age range of 18 to 95, future studies might consider other diverse Asian immigrant groups, for instance, different age groups, such as children and adolescents. Continued efforts to understand the complexities of perceived racial discrimination, in terms of race, gender, socioeconomic status, sexual

orientation, geography, and other factors (Smedley & Myers, 2014) will be critically important. The reason why these factors need to be studied together is that racial discrimination, gender, and class exploitation work together on multiple levels simultaneously (Crenshaw, 1991).

Furthermore, studying different demographic information, as mediating and/or moderating variables will be helpful. Indeed, studying the effects of acculturation or English fluency among immigrant populations will be insightful. So far, previous studies, which included these factors, yielded mixed findings, and more future research should be conducted in this area.

3. Types of studies: Longitudinal studies

The current project offered a cross-sectional study, which examined the phenomenon at only one time of an individual's life when the data was collected. Therefore, an important implication for future research is that the impact of perceived racial discrimination and the role of coping factors should be studied longitudinally. By utilizing a life course perspective (Smedley & Myers, 2014), researchers will be able to study how "chronological age, relationships, common life transitions, and social change shape people's lives" (Hutchison, 2010). This is a relevant perspective when investigating the impact of perceived racial discrimination on individuals' lives. The impacts of discrimination and the types of coping strategies that people choose might change over time as they develop. Children and adolescents' perceptions of racial discrimination might differ from adults, and studying those changes will be very insightful.

4. Statistical analytical methods

The given study examined the associations among perceived racial discriminations, psychological well-being, and moderating factors through two different types of regressions. These include Ordinary Least Squares (OLS) regression and binary logistic regression. Since there are complicated relationships between the study factors, it was difficult to capture

multiple associations at the same time. Therefore, it is unknown how different factors, such as immigrants' generational status, individuals' ages, and ethnic subgroups simultaneously affect each other, as well as psychological well-being when confronted by racial discrimination. Therefore, using more advanced statistical methods will allow researchers to examine the associations between different factors at the same time (Fornell, 1984; Chin, 1998). Statistical methods, such as Structural Equation Modeling (SEM), might be a good way to do so in future studies. SEM combines a variety of statistical procedures, such as multiple regression, factor analysis, and ANOVA (Nachtigall, Kroehne, Funke, & Steyer, 2003).

5. Theoretical development

The given study used a stress and coping model (Lazarus & Folkman, 1984) as a theoretical framework. However, it is devoid of specific discussion on racial discrimination, and there are alternative models. The Model of Racism-Related Stress and Wellbeing (MRSW; Harrell, 2000) is a good example. Harrell (2000) defines racism-related stress as "the stress that racial or ethnic minorities encounter in their daily lives due to their group membership." There are five basic domains of MRSW, including "antecedent variables," "familial and socialization influences," "sources of stress," "internal and external mediators," and "outcomes." Each of these components influences racial and/or ethnic minority individuals' experiences of racial discrimination.

The stress-coping model provides limited explanations of the complicated relationships between the stressors and experienced stress. MSRW has a more sophisticated framework that explains individual factors that might buffer or exacerbate the impact of racial discrimination. MSRW also illustrates how that impact can be lowered through coping strategies. Hence, it seems to offer a more advanced or tailored framework to study the impact of perceived racial

discrimination and the role of coping. However, MSRW was not suitable for the given study, since the NLASS data set did not have enough variables, such as antecedent events, before the racial discrimination occurred. Therefore, future studies might consider the phenomenon by utilizing this theory, and it will advance our understanding of Asian immigrants' experience of perceived racial discrimination.

Conclusion

In conclusion, this study's findings suggest that Asian immigrants may benefit by obtaining social support in order to be protected from the detrimental effects of perceived racial discrimination. Also, Asian immigrants were affected by racial discrimination differently by their age and ethnicity. Young adults (ages 18 to 24) and Vietnamese immigrants were the most vulnerable populations among the sample. A final and noteworthy finding was related to racial/ethnic identity and how it worked counteractively. Social workers and mental health providers can take these factors into consideration, encouraging Asian immigrants to obtain social support. Specifically, programs should be instituted in order to intervene and target the most vulnerable group. In general, the development of an individual's racial/ethnic identity should be approached more carefully. These efforts will benefit Asian immigrants' psychological wellbeing greatly when battling against the detrimental effects of racial discrimination.

APPENDIX A

VARIABLE OPERALIZATION

Variable	Survey Questions and Original Response Options	Operationalization
A. Dependent variables		
Psychological Well-Being		
Self-rated mental health (SRMH)	How would you rate your overall mental health Original var after reverse coded	A dichotomous variable: 0= Poor 1= Good
Psychological Distress (K-7)	1. Past mth-depressed 2. Worst month in past year-feel hopeless 3. Worst month in past year-feel hopeless 4. Past mth-tired for no good reason 5. Past mth-everything an effort 6. Worst month in past year-feel worthless 7. Past mth-nervous	A continuous variable= 7-35
Independent variables		
B. Perceived Racial Discrimination		
Everyday discrimination	In your day-to-day life how often have any of the following things happened to you?	A continuous variable (after log transformation of the original variable)

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.
9. You are threatened or harassed.

Racial discrimination	Perceived racial discrimination 3 item total score (range:4-12)	A dichotomous variable 0= Low 1=High
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1. How often do people dislike you because you are [(Mexican/Mexican American/Chicano/ Puerto Rican/Cuban/American)]

2. How often do people treat you unfairly because you are [(Mexican/Mexican American/Chicano/Puerto Rican/Cuban/American)]

3. How often have you seen friends treated unfairly because they are [(Mexican/Mexican American/Chicano/Puerto Rican/Cuban/American)]

Moderating Variables

C. Social Support

Received social support from family and friends &

1. How often the respondent talks on the phone or gets together with family or relatives. (5-point Likert scale)

A continuous variable (total score: 6-26)

Perceived emotional support from family and friends

2. How/Not including your (husband/wife/partner), how] much can you rely on relatives who do not live with you for help if you have a serious problem (4-point Likert scale)

3. How/Not including your (husband/wife/partner), how] much can you open up to relatives who do not live with you if you need to talk about your worries (4-point Likert scale)

4. How often do you talk on the phone or get together with friends (5-point Likert scale)

5. How much can you rely on your friends for help if you have a serious problem (4-point Likert scale)

6. How much can you open up to your friends if you need to talk about your worries (4-point Likert scale)

Racial/Ethnic Identity

Racial/Ethnic Identity

1. How closely do you identify with other people who are of the same racial and ethnic descent as yourself?

2. How close do you feel, in your ideas and feelings about things, to other people of the same racial and ethnic descent?

3. If you could choose, how much time would you like to spend with other people who are of your same racial and ethnic group?

A categorical variable

1= Low 4-10 (reference group)

2= Moderate 11-13

3= High 14-16

4. How important do you think it is for people who are from your same racial and ethnic group to marry other people who are also from this group - very important, somewhat, not very, or not at all important?

Group Membership

Immigrant generation status

Age at Immigration

A dichotomous variable

0= US born and came before the age of 12
 1= First generation immigrants. Came after the age of 13.

Ethnic subgroups

Race/Ancestry

A categorical variable

1= Vietnamese (reference group)
 2= Filipino
 3= Chinese
 4= All other Asian

AGE

A continuous variable (range 18-97)

A categorical age variable
 0=18-29 (reference group)
 1=30-44
 2=45-64

3=65-95

Control Variables
Sociodemographic Factors

Gender

0= Female

1=Male

Marital status

A categorical variable

1= Married/ Cohabiting (reference group)

2=Divorced/Separated/Widowed

3= Never Married

1= Married/ Cohabiting (reference group)

2=Divorced/Separated/Widowed

3= Never Married

Education

Years of education-4 categories

A categorical variable

0= 0-11 years (reference group)

1= 12 years

2= 12-15 years

3= Greater than or equal to 16 years

Household income

Household Income

A categorical variable

0= <\$14,999.00 (reference group)

1= \$15,000-\$34,999.9

2= \$35,000-\$74,999.9

3= \$75,000 or more

Employment status

Work Status 3 categories

A categorical variable

1= Employed

2= Unemployed (reference)

3= Not in labor force

REFERENCES

- Abe-Kim, J., Takeuchi, D. T., Hong, S., Zane, N., Sue, S., Spencer, M. S., et al. (2007). Use of mental health-related services among immigrant and US-born Asian Americans: Results from the National Latino and Asian American study. *American Journal of Public Health, 97*(1), 91-98.
- Abouguendia, M., & Noels, K.A. (2001). General and acculturation-related daily hassles and psychological adjustment in first- and second-generation South Asian immigrants to Canada. *International Journal of Psychology, 36*(3), 163-173.
- Ahmad, F., Kjhajj, A., Steward, D.E., Burghardt, M., & Bierman, A.S. (2014). Single item measures of self-rated mental health: A scoping review. *BioMed Central Health Services Research, 14*, 398. DOI: 10.1186/1472-6963-14-398
- Ai, A.L., Aisenberg, E., Weiss, S.I., & Salazar, D. (2014). Racial/Ethnic identity and subjective physical and mental health of Latino American: An asset within? *American Journal of Community Psychology, 53*, 173-184.
- Ai, A. L., Huang, B., Bjorck, J., & Appel, H. B. (2013). Religious Attendance and Major Depression Among Asian Americans From a National Database: The Mediation of Social Support. *Psychology of Religion and Spirituality*. Advance online publication. doi: 10.1037/a0030625
- Alegria, M., Takeuchi, D., Canino, G., Duan, N., Shrout, P., Meng, X-L., & Gong, F. (2004). Considering context, place and culture: The National Latino and Asian American Study. *International Journal of Methods in Psychiatric Research, 13*, 208–220.
- Andrew, G., & Slade, T. (2001). Interpreting scores on the Kessler Psychological Distress Scale. *Australian and New Zealand Journal of Public Health, 25*(6), 494-497.
- American Psychiatric Association. (1994). *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.). Washington, DC.
- Anderson, E.S., Rawls, J., & Thurmau, A.F. (2008, July). *Race, Gender, and Affirmative Action* [Resource Page for Teaching and Study]. University of Michigan. Retrieved from <https://web.archive.org/web/20100604211430/http://www-personal.umich.edu/~eandersn/biblio.htm>
- Appel, H.B., Ai, A.L., Huang, B., & Nicdao, E. (2013). Detrimental effects of discrimination on mental health in Asian Americans; Counteracting roles of religious involvement. *The International Journal for the Psychology of Religion, 24*(1), 28-46.
- Appel, H.B., Ai, A.L., Huang, B., & Nicdao, E. (2014). Detrimental effects of discrimination on

- mental health in Asian Americans: Counteracting roles of religious involvement. *The International Journal for the Psychology of Religion*, 24(1), 28-46.
- Arnett, J.J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55(5), 469-480.
- Asian American Federation. (July, 2012). A demographic snapshot of South Asians in the United States. Retrieved from <http://saalt.org/wp-content/uploads/2012/09/Demographic-Snapshot-Asian-American-Foundation-2012.pdf>
- Atkins, R. (2014). Instruments Measuring Perceived Racism/Racial Discrimination: Review and Critique of Factor Analytic Techniques. *International Journal of Health Services*, 44(4), 711-734.
- Baumeister, R.F., DeWall, C.N., Ciarocco, N.J., Twenge, J.M. (2005). Social exclusion impairs self-regulation. *Journal of Personality & Social Psychology*, 88(4), 589-604.
- Betancourt, H., & Lopez, S.R. (1993). The study of culture, ethnicity, and race in American psychology. *American Psychologist*, 48(6), 629-637.
- Bierman, A. (2006). Does religion buffer the effects of discrimination on mental health? Differing effects by race. *Journal for the Scientific Study of Religion*, 45, 551-565.
- Bjorck, J. P., & Thurman, J. W. (2007). Negative life events, patterns of positive and negative religious coping, and psychological functioning. *Journal for the Scientific Study of Religion*, 46, 159-167.
- Broman, C.L., Mavaddat, R., & Hsu, S-y. (2002). The experiences and consequences of perceived racial discrimination: A study of African Americans. *Journal of Black Psychology*, 26(2), 165-180.
- Brondolo, E., Ver Halen, N.B., Pencille, M., Beatty, D., Contrada, R.J. (2008). Coping with racism: a selective review of literature and a theoretical and methodological critique. *Journal of Behavioral Medicine*. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3258496/>
- Brown, A., & Lopez, M.H. (2013). *Mapping the Latino population, by state, and city*. PewResearch Hispanic Trends Project. Retrieved from <http://www.pewhispanic.org/2013/08/29/mapping-the-latino-population-by-state-county-and-city/>
- Center for Multicultural Mental Health Research. (2015). National Latino and Asian American Study. NLAAS Public Release. Retrieved from <http://www.multiculturalmentalhealth.org/nlaas.asp>

- Cervantes, R.C., Padilla, A.M., Napper, L.E., & Goldbach, J.T. (2013). Acculturation-related stress and mental health outcomes among three generations of Hispanic adolescents. *Hispanic Journal of Behavioral Sciences*, 35(4), 451-468.
- Chae, D.H., Lee, S., Lincoln, K.D., & Ihara, E.S. (2011). Discrimination, family relationships, and major depression among Asian Americans. *Journal of Immigrant Minority Health*, 14, 361-370
- Chatters, L.M., McKeever, K., Taylor, R.J., Woodward, A.T., Neighbors, H.W., & Jackson, J.S. (2008). Religious participation and DSM-IV disorders among older African Americans: Findings from the national survey of American life. *American Journal of Geriatric Psychiatry* 16(12), 957-965.
- Chavira, V., & Phinney, J. S. (1991). Adolescents' Ethnic Identity, Self-esteem, and Strategies for Dealing with Ethnicity and Minority Status. *Hispanic Journal of Behavioral Sciences*, 13, 226-253.
- Chen, J-P., Chen, H., Wang, C.B., & Chung, H. (2002). Depressive disorders in Asian American adults. . *The Western Journal of Medicine*, 176, 239-244.
- Choi, S. Lewis, J.A., Harwood, S.A., Mendenhall, R., & Hunt, M.B. (2016). Is Ethnic Identity a Buffer? Exploring the Relations Between Racial Microaggressions and Depressive Symptoms Among Asian American Individuals. *Journal of Ethnic & Cultural Diversity in Social Work*. DOI: 10.1080/15313204.2016.1263815
- Clark, R., Anderson, A., Clark, V. R., & Williams, D. R. (1999). Racism as a stressor for African Americans. *American Psychologist*, 54, 805–816.
- Connor, P., Cohn, D., & Gonzalez-Barrera, A. (December 17, 2013). Changing Patterns of Global Migrations and Remittances. Pew Research Center. Retrieved from <http://www.pewsocialtrends.org/2013/12/17/changing-patterns-of-global-migration-and-remittances/>
- Council on Social Work Education (CSWE). (n.d.). Minority Fellowship Program. Retrieved from <http://www.cswe.org/Centers-Initiatives/Initiatives/Minority-Fellowship-Program.aspx>
- Crenshaw, K. (1991). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review*, 43, 1241–1299. Retrieved from http://www.socialdifference.org/files/active/0/Article__Mapping_the_Margins_by_Kimblere_Crenshaw.pdf
- Cross, W.E. (1971). The Negro-to-black Conversion Experience. In *Shades of Black: Diversity in African-American Identity* (pp.13-27). Philadelphia, PA: Temple University Press.

- Denson, N. (2009). Do curricular and cocurricular diversity activities influence racial bias? A meta-analysis. *Review of Educational Research*, 79(2), 805-838.
- DuBois, D. L., Burk-Braxton, C., Swenson, L. P., Tevendale, H.D., & Hardesty, J. L. (2002). Race and gender influences on adjustment in early adolescence. *Child Development*, 73, 1573–1592.
- Durkheim, E. (1965). *The Elementary Forms of the Religious Life*. New York: Free Press.
- Fiala, W. E., Bjorck, J. P., & Gorsuch, R. (2002). The religious support scale: Construction, validation and cross-validation. *American Journal of Community Psychology*, 30, 761–786. doi:10.1023/A:1020264718397
- Finch, B. K., Hummer, R. A., Kolody, B., & Vega, W. A. (2001). The role of discrimination and acculturative stress in the physical health of Mexican-origin Adults. *Hispanic Journal of Behavioral Sciences*, 23, 399-429.
- Finch, B. K., Kolody, B., & Vega, W. A. (2000). Perceived discrimination and depression among Mexican-origin adults in California. *Journal of Health and Social Behavior*, 41, 295-313.
- Fischer, P., Ai, A. L., Aydin, N., Haslam, A., & Frey, D. (2010). The relationship of religious identity and preferred coping strategies: An examination of relative importance of interpersonal and intrapersonal coping in Muslims and Christian faiths. *Review of General Psychology*, 14, 365–381. doi:10.1037/a0021624
- Fornell, C. (1984). A second generation of multivariate analysis: classification of methods and implications for marketing research. Working paper .University of Michigan. Graduate School of Business Administration.
- Ribble, F & Keddie, M. (2001). Understanding the Hispanic paradox. *Ethnicity & Disease*, 11, 496-518.
- Gee, G. C., Spencer, M. S., Chen, J., & Takeuchi, D. (2007). A nationwide study of discrimination and chronic health conditions among Asian Americans. *American Journal of Public Health*, 97, 1275–1282.
- Gee, G. C., Spencer, M., Chen, J., Yip, T., & Takeuchi, D. T. (2007). The association between self-reported racial discrimination and 12-month DSM–IV mental disorders among Asian Americans nationwide. *Social Science & Medicine*, 64, 1984–1996.
- Gee, G.C., Walsemann, K.M., & Brondolo, E. (2012). A life course perspective on how racism may be related to health inequalities. *American Journal of Public Health*, 102(5), 967-974.

- Halferty, A., & Clarke, A. (2009). Student-led campus climate change initiatives in Canada. *International Journal of Sustainability in Higher Education*, 10(3), 287-300.
- Harrell, S. P. (1997). The Racism and Life Experience Scales (RaLES): Self-administration version. Unpublished instrument. Los Angeles, CA: Pepperdine University Graduate School of Education and Psychology.
- Harrell, S.P. (2000). A multidimensional conceptualization of racism-related stress: Implications for the well-being of people of color. *American Journal of Orthopsychiatry*, 70(1), 42-57.
- Heeringa, S. G., Wagner, J., Torres, M., Duan, N., Adams, T., & Berglund, P. (2004). Sample designs and sampling methods for the Collaborative Psychiatric Epidemiology Studies (CPES). *International Journal of Methods in Psychiatric Research*, 13, 221–240.
- Heeringa, S.G., West, B.T., & Berglund, P.A. (2010). *Applied Survey Data Analysis*. A Chapman & Hall Book. New York: NY.
- Helms, J. E. (1993). Introduction: Review of Racial Identity Terminology. In J. E. Helms (ed.), *Black and White Racial Identity: Theory, Research and Practice*. Westport, Conn.: Praeger.
- Heppner, P. P., Cook, S. W., Wright, D. M., & Johnson, C. (1995). Progress in resolving problems: A problem-focused style of coping. *Journal of Counseling Psychology*, 42, 279–293.
- Heras, P., & Revilla, C.A. (1994). Acculturation, generational status, and family environment of Filipino Americans: A study in cultural adaptation. *Family Therapy*, 21, 129-138.
- Hing, B. O. (1993). Beyond the rhetoric of assimilation and cultural pluralism: addressing the tension of separatism and conflict in an immigration-driven multiracial society. *California Law Review*, 81, 863–925.
- Hinrichs, P. (2012). The effects of affirmative action bans on college enrollment, educational attainment, and the demographic composition of universities. *The Review of Economics and Statistics*, 94(3), 712-722.
- Hirschman, C. (1996). Studying immigrant adaptation from the 1990 population census: From generational comparisons to the process of “becoming American”. In Portes (Ed.), *The new second generation* (pp.54-81). New York: The Russell Sage Foundation.
- Hoeffel, E. M., Rastogi, S., Kim, M. O., & Shahid, H. (2012). The Asian Population: 2010. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-11.pdf>.

- Horton, K.D., & Lukas, A. (2013). Discrimination, religious coping, and Tobacco use among White, African American, and Mexican American vocational school students. *Journal of Religion and Health*, 52, 169-183.
- Hutchison, E.D. (2010). A life course perspective. In *Dimensions of Human Behavior: The Changing Life Course (4th. Ed.)*, (pp.1-38).Sage Publications, Inc.
- Inman, A., Tumala-Nara, P., Kaduveltoor-Davidson, A., Alvarez, A.N., & Yeh, C.J. (2015). Perceptions of race-based discrimination among first generation Asian Indians in the United States. *The Counseling Psychologist*, 43(2), 217-247.
- John, D.A., de Castro, A.B., Martin, D.P., Duran, B., & Takeuchi, D.T. (2012). Does an immigrant health paradox exist among Asian Americans? Associations of nativity and occupational class with self-rated health and mental disorders. *Social Science & Medicine*, 75, 2085-2098.
- Kaduveltoor-Davidson, A., & Inman, A. G. (2013). South Asian Americans: Perceived discrimination, stress, and well-being. *Asian American Journal of Psychology*, 4(3), 155-165. doi: <http://dx.doi.org/10.1037/a0030634>
- Karel, M.J., Gatz, M., & Smyer, M.A. (2012). Aging and mental health in the decade ahead; What psychologists need to know. *The American Psychologist*, 67(3), 184-198.
- Karlsen., S., & Nazroo, J.Y. (2002). Relation between racial discrimination, social class, and health among ethnic minority groups. *American Journal of Public Health*, 92(4), 614-631.
- Kawachi, I., & Berkman, L.F.(2001). Social Ties and Mental Health. *Journal of Urban Health* 78, 458–67.
- Kessler, R. C., Andrews, G., Colpe, L. J., Hiripi, E., Mroczek, D. K., Normand, S.-L. T., Walters, E.E., & Zaslavsky, A.M. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine*, 32, 959-976.
- Klonoff, E. A., Landrine, H., & Ullman, J. B. (1999). Racial discrimination and psychiatric symptoms among Blacks. *Cultural Diversity and Ethnic Minority Psychology*, 5(4), 329-339.
- Kim, S. Y., Wang, Y., Deng, S., Alvarez, R., & Li, J. (2011). Accent, perpetual foreigner stereotype, and perceived discrimination as indirect links between English proficiency and depressive symptoms in Chinese American adolescents. *Developmental Psychology*, 47(1), 289-301. doi: <http://dx.doi.org/10.1037/a0020712>
- Kirchner, T., & Patino, C. (2010). Stress and depression in Latin American immigrants: The

- mediating role of religiosity. *European Psychiatry*, 25, 479-484.
- Koenig, H. G., Cohen, H. J., Blazer, D. G., Pieper, C, Meador, K. G., Shelp, R, Goli, V., & DiPasquale, B. (1992). Religious coping and depression among elderly, hospitalized medically ill men. *American Journal of Psychiatry*, 149, 1693-1700.
- Krieger, N. (1999). Embodying inequality: a review of concepts, measures, and methods for studying health consequences of discrimination. *International Journal of Health Services*, 29 (2), 295-352.
- Krieger, N., & Sidney, S. (1996). Racial discrimination and blood pressure: The CARDIA study of young black and white adults. *American Journal of Public Health*, 86(10),1370–1378.
- Kroenke, K., Spitzer, R., & Williams, W. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine*, 16, 606-616.
- Kuo, W.H. (1984). Prevalence of depression among Asian-Americans. *Journal of Nervous and Mental Disease*, 172, 449-457.
- Kuo, W.H., & Tsai, Y.M.(1986). Social networking, hardiness and immigrant's mental health. *Journal of Health and Social Behavior*, 27, 133-149.
- LaVeist, T.A., Thorpe Jr, R.J., & Pierre, J. (2014). The relationships among vigilant coping style, race, and depression. *Journal of Social Issues*, 70(2), 241-255.
- Lay, C., & Vertuyten, M. (1999). Ethnic identity and its relation to personal self-esteem: A comparison of Canadian-born and foreign-born Chinese adolescents. *The Journal of Social Psychology*, 139, 288-299.
- Lazar, A., & Bjorck, J. P. (2008). Religious support and psychosocial well-being among a religious Jewish population. *Mental Health, Religion, and Culture*, 11, 403–421. doi:10.1080/13674670701486142
- Lazarus, R.S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer Publishing Company.
- Lazarus, R. S., & Folkman, S. (1987). Transactional theory and research on emotions and coping. *European Journal of Personality*, 1, 141–169.
- Le, C.N (2015). Population Statistics & Demographics *Asian-Nation: The Landscape of Asian America*. Retrieved from <http://www.asian-nation.org/population.shtml>

- Lee, S., Juon, H-S., Martinez, G., Hsu, C.E., Robinson, E.S., Bawa, J., & Ma, G.X. (2009). Model minority risk: Expressed needs of mental health by Asian American young adults. *Journal of Community Health, 34*(2), 144-152.
- Leong, F. T. L., & Lau, A. S. L. (2001). Barriers to providing effective mental health services to Asian Americans. *Mental Health Services Research, 3*(4), 201-214.
- Lewis, J.A., Mendenhall, R., Harwood, S.A., & Browne Huntt, M. (2013). Coping with gendered racial microaggressions among Black women college students. *Journal of African American Studies. DOI 10.1007/s12111-012-9219-0*.
- Li, M. (2014). Discrimination and psychiatric disorder among Asian American immigrants: A national analysis by subgroups. *Journal of Immigrant and Minority Health, 16*(6), 1157-1166.
- Liang, C.T.H., Alvarez, A.N., Juang, L.P., & Liang, M.X. (2007). The role of coping in the relationship between perceived racism and racism-related stress for Asian Americans: Gender differences. *Journal of Counseling Psychology, 54*(2), 132-141.
- Malik, S. (May 21, 2015). Asian Immigrants in the United States Today. Center for American Progress. Retrieved from <https://www.americanprogress.org/issues/immigration/news/2015/05/21/113690/asian-immigrants-in-the-united-states-today/>
- Martin, J. K., Tuch, S. A., & Roman, P. M. (2003). Problem drinking patterns among African Americans: the impacts of reports of discrimination, perceptions of prejudice, and "risky" coping strategies. *Journal of Health and Social Behavior, 44*(3), 408-425.
- Montazer, S., & Wheaton, B. (2011). The impact of generation and country of origin on the mental health of children of immigrants. *Journal of Health and Social Behavior, 52*(1), 23-41.
- Mossaskowski, K.N. (2003). Coping with perceived discrimination: Does ethnic identity protect mental health?. *Journal of Health and Social Behavior, 44*, 318-331.
- Mossakowski, K.N., & Zhang, W. (2014). Does social support buffer the stress of discrimination and reduce psychological distress among Asian Americans? *Social Psychology Quarterly, 77*(3), 273-295.
- Nachtigall, C., Kroehne, U., Funke, F., & Steyer, R. (2003). (Why) should we use SEM? Pros and cons of structural equation modeling. *Methods of Psychological Research, 8*(2), 1-22.

- National Comorbidity Survey (n.d.). K10 and K6 Scales. Retrieved from http://www.hcp.med.harvard.edu/ncs/k6_scales.php.
- National Association of Social Workers. (2016). Standards and Indicators for Cultural Competency in Social Work Practice. Retrieved from <https://www.socialworkers.org/practice/standards/NASWCulturalStandardsIndicators2006.pdf>
- Noh, S., Beiser, M., Kaspar, V., Hou, F., & Rummens, J. (1999). Perceived racial discrimination, depression, and coping: A study of Southeast Asian refugees in Canada *Journal of Health and Social Behavior*, 40, 193-207.
- Noh, S., & Kaspar, V. (2003). Perceived discrimination and depression: Moderating effects of coping, acculturation, and ethnic support. *American Journal of Public Health*, 93(2), 232-238.
- Office of Inclusion and Intercultural Relations (OIIR). (n.d). University of Illinois at Urbana Champaign. Our mission and goals. Retrieved from <https://oiir.illinois.edu/about/our-mission-and-goals>
- Osipow, S., & Spokane, A. (1984). Measuring occupational stress, strain, and coping. *Applied Social Psychology Annual*, 5, 67-86.
- Park, K. (1999). "I really do feel like I'm 1.5!" : The construction of self and community. *Ameasia Journal*, 25(1), 139-163.
- Pagoto, S.L., Spring, B., Coups, E.J., Mulvaney, S., Coutu, M-F., & Ozakinci, G. (2007). Barriers and facilitators of evidence-based practice perceived by behavioral science health professionals. *Journal of Clinical Psychology*, 63(7), 695-705.
- Pargament, K. I. (1997). *The psychology of religion and coping: Theory, research, practice*. New York: Guilford Press
- Pargament, K.I., & Brant, C.R. (1998). Ch8. Religion and Coping in *Handbook of Religion and Mental Health*. Koenig, H.G. (Eds.) pp.11-128. Academic Press. San Diego:CA.
- Park, I.J.K., Schwartz, S.J., Lee, R.M., & Kim, M. (2013). Perceived racial/ethnic discrimination and antisocial behaviors among Asian American college students: Testing the moderating roles of ethnic and American identity. *Cultural Diversity and Ethnic Minority Psychology*, 19(2), 166-176.
- Pascoe, E.A. & Richman, L.S. (2009). Perceived discrimination and health: A meta-analytic review. *Psychological Bulletin*, 135(4), 531-554.

- Perlow, H. M., Danoff-Burg, S., Swenson, R. R., & Pulgiano, D. (2004). The impact of ecological risk and perceived discrimination on the psychological adjustment of African American and European youth. *Journal of Community Psychology, 32*, 375–389.
- Pew Research Center. (2004). *Generational Differences: Fact Sheet*. Retrieved from <http://www.pewhispanic.org/2004/03/19/generational-differences/>
- Pew Research Center. (February 7, 2013). Second-Generation Americans: A portrait of the Adult Children of Immigrants. Retrieved from <http://www.pewsocialtrends.org/2013/02/07/second-generation-americans/>.
- Pew Research Center .(2015). Modern Immigration Wave Brings 59 Million to U.S., Driving Population Growth and Change Through 2065. Retrieved from <http://www.pewhispanic.org/2015/09/28/modern-immigration-wave-brings-59-million-to-u-s-driving-population-growth-and-change-through-2065/>
- Phinney, J.S. (1989). Stages of ethnic identity development in minority group adolescents. *Journal of Early Adolescence, 9*(1-2), 34-49.
- Phinney, J.S. (1991). Ethnic identity and self-esteem: A review and integration. *Hispanic Journal of Behavioral Sciences, 13*, 193-208.
- Phinney, J.S (1992). The multigroup ethnic identity measure: A new scale for use with diverse groups. *Journal of Adolescent Research, 7*(2), 156-176.
- Phinney, J.S. (1996). When we talk about American ethnic groups, what do we mean? *American Psychologist, 51*(9), 918-927
- Pieterse, A.L., Todd, N.R., Neville, H.A., & Carter, R.T. (2011). Perceived racism and mental health among Black American. *Journal of Counseling Psychology, 99*(1), 1-9.
- Portes, A., Fernandez-Kelly, P., & Haller, W. (2005). Segmented assimilation on the ground: The new second generation in early adulthood. *Ethnic and Racial Studies, 28*(6), 1000-1040.
- Portes, A., & Rumbaut, R.G. (1996). *Immigrant America: A Portrait*. Berkeley: University of California Press.
- Portes, A., & Rumbaut, R.G. (2001). *Legacies: The Story of the Immigrant Second Generation*. New York: Russell Sage Foundation.
- Portes, A., & Zhou, M. (1993). The new second-generation: segmented assimilation and its

- Variants. *The Annals of the American Academy of Political and Social Science*, 530, 74-96.
- Potocky-Tripodi, M. (2002). *Best practices for Social Work with Refugees and Immigrants*. Columbia University Press: New York.
- Quintana, S.M., & McKown, C. (2008). Introduction: Race, Racism, and the Developing Child. Quintana, S.M., & KcKown, C (Eds.), *Handbook of Race, Racism, and the Developing Child*. (pp.1-15). John Wiley & Sons, Inc., Hoboken, New Jersey.
- Ravitz, J. (Sept 28, 2015). Asians on pace to overtake Hispanics among U.S. immigrants study shows. CNN. Retrieved from <http://www.cnn.com/2015/09/28/us/pew-study-immigration-asians-hispanics/>
- Rubbie, A., & Babbie, E. (2009). *Research Methods for Social Work* (7th Ed.). Pacific Grove, CA: Books Cole.
- Rumbaut, R.G. (1994). The crucible within: Ethnic identity, self-esteem, and segmented assimilation among children of immigrants. *International Migration Review*, 28, 748-794.
- Schuster, T.L., Kessler, R.C., Aseltine, R. H. (1990) Supportive interactions, negative interactions, and depressed mood. *American Journal of Community Psychology*, 18, 423-438.
- Scott, Jr, L.D. (2003a). Cultural orientation and coping with perceived discrimination among African American youth. *Journal of Black Psychology*, 29, 235-265.
- Scott, Jr. L.D. (2003b). The relation of racial identity and racial socialization to coping with discrimination among African American adolescents. *Journal of Black Studies*, 33, 520-538.
- Scott, Jr, L.D., & House, L.E. (2005). Relationship of distress and perceived control to coping with perceived racial discrimination among Black youth. *Journal of Black Psychology*, 31, 254-272.
- Sellers, R. M., Smith, M. A., Shelton, J. N., Rowley, S. A. J., & Chavous, T. M. (1998). Multidimensional model of racial identity: A reconceptualization of African American racial identity. *Personality and Social Psychology Review*, 2, 18-39.
- Sellers, R.M., Caldwell, C.H., Schmeelk-Cone, K.H., & Zimmerman, M.A. (2003). Racial identity, racial discrimination, perceived stress, and psychological distress among African American young adults. *Journal of Health and Social Behavior*, 44(3), 302-317.

- Smedley, A., & Smedley, B. (2005). Race as biology is fiction, racism as a social problem is real: Anthropological and historical perspectives on the social construction of race. *American Psychologist*, 60, 16-26.
- Smedley, B.D., & Myers, H.F. (2014). Conceptual methodological challenges for health disparities research and their policy implications. *Journal of Social Issues*, 70(2), 382-391.
- Simpson, G.E., & Yinger, J.M. (1985). *Racial and cultural minorities: An analysis of prejudice and discrimination (5th Ed.)*. New York: Plenum Press.
- Smith, W. A. (2008). Higher education: Racial battle fatigue. In R. T. Schaefer (Ed.), *Encyclopedia of race, ethnicity, and society* (pp. 615-618). Thousand Oaks, CA: Sage Publications.
- Smith, W. A., Allen, W. R., & Danley, L. L. (2007). "Assume the position... you fit the description": Psychosocial experiences and racial battle fatigue among African American male college students. *American Behavioral Scientist*, 51(4), 551-578.
- Sue, D.W. (2010). *Microraggressions in Everyday Life: Race, Gender, and Sexual Orientation*. John Wiley & Sons, Inc. Hoboken; NJ.
- Sue, S., Sue, D. W., Sue, L., & Takeuchi, D. T. (1995). Psychopathology among Asian Americans: A model minority? *Cultural Diversity and Mental Health*, 1, 39-54.
- Syed, M., & Juan, J.D. (2011). Discrimination and psychological distress: Examining the moderating role of social context in a nationally representative sample of Asian American adults. *Asian American Journal of Psychology*, 3(2), 104-120.
- Szymanski, D.M., & Obiri, O. (2011). Do religious coping styles moderate or mediate the external and internalized racism-distress links? *The Counseling Psychologist*, 39(3), 438-462.
- Tafoya, S. (2007). Shades of belonging: Latinos and racial identity. *Race, class, and gender in the United States*, 218-221.
- Tajfel, H. (1978). *The Social Psychology of Minorities*. New York: Minority Rights Group.
- Takeuchi D., Chung RCY., Lin K.M., Shen, H., Kurasaki, K., Chun, C-A., Sue, S.(1998). Lifetime and twelve-month prevalence rates of major depressive episodes and dysthymia among Chinese Americans in Los Angeles. *American Journal of Psychiatry*, 155, 1407-1414.
- Taylor, T.R., Williams, C.D., Makambi, K.H., Mouton, C., Harrell, J.P., & Cozier, Y. (2007).

- Racial discrimination and breast cancer incidence in US Black women. *American Journal of Epidemiology*, 166(1), 46–54.
- Terreri, C.J., & Glenwick, D.S. (2011). The relationship of religious and general coping to psychological adjustment and distress in urban adolescents. *Journal of Religion and Health*, 52, 1188-1202.
- Thoits, P.A. (2011). Mechanisms Linking Social Ties and Support to Physical and Mental Health. *Journal of Health and Social Behavior*, 52(2),145–61.
- Tuan, M. (1998). *Forever foreigners or honorary Whites?* New Brunswick, NJ: Routledge Press.
- Tummala-Narra, P., Alegria, M., & Chen, C.-N. (2012). Perceived discrimination, acculturative stress, and depression among South Asians: Mixed findings. *Asian American Journal of Psychology*, 3(1), 3-16. doi: <http://dx.doi.org/10.1037/a0024661>
- U.S. Census Bureau. (2012). The Asian Alone or in Combination Population in the United States: 2012. Retrieved from <https://www.census.gov/population/race/data/ppl-ac12.html>
- Umaña-Taylor, A. J., & Updegraff, K. A. (2007). Latino adolescents' mental health: Exploring the interrelations among discrimination, ethnic identity, cultural orientation, self-esteem, and depressive symptoms. *Journal of adolescence*, 30(4), 549-567.
- University of Illinois at Urbana-Champaign Counseling Center. (n.d). Asian American Outreach. Retrieved from <http://counselingcenter.illinois.edu/outreach-consultation-prevention/cultural-diversity-outreach/asian-american-outreach>
- Vega, W., Zimmerman, R., Gil, A., Warheit, G., Apospori, E. (1993). Acculturation strain theory: Its application in explaining drug use behavior among Cuban and other Hispanic youth. In M. DeLa Rosa and J.L. Recio, (Eds.), *Drug abuse among minority youth*. National Institute of Drug Abuse.
- Verkuyten, M. (2008). Perceived discrimination, ethnic minority identity, and self-esteem. In Quintana, S.M., & KcKown, C (Eds.), *Handbook of Race, Racism, and the Developing Child*. (pp.339-365). John Wiley & Sons, Inc., Hoboken, New Jersey.
- Waters, M.C. (1994). Ethnic and racial identities of second generation black immigrants in New York City. *International Migration Review*, 28(4), 795-820.
- Wei, M., Ku, T-S., Russell, D.W., & Mallinckrodt, B. (2008). Moderating effects of three coping strategies and self-esteem on perceived discrimination and depressive symptoms: A minority stress model for Asian international students. *Journal of Counseling Psychology*, 55(4), 451-462.

- Williams, D.R., Yan, Y., Jackson, J.S., & Anderson, N.B. (1997). Racial differences in physical and mental health: Socio-economic status, stress and discrimination. *Journal of Health Psychology, 2*, 335-351.
- Williams, D.R., & Mohammed, S.A. (2009). Discrimination and racial disparities in health: Evidence and needed research. *Journal of Behavioral Medicine, 32*, 20–47.
- Williams, D.R., Neighbors, H.W., & Jackson, J.S. (2009). Racial/ethnic discrimination and health: Findings from community studies. *American Journal of Public Health, 93*(2), 200–208.
- Williams, D. R., & Williams-Morris, R. (2000). Racism and mental health: The African American experience. *Ethnicity and Health, 5*, 243–268.
- World Health Organization (WHO) (n.d). Adolescents and Mental Health. Maternal, newborn, child, and adolescent health. Retrieved from http://www.who.int/maternal_child_adolescent/topics/adolescence/mental_health/en/
- Xie, Y., & Goyette, K.A (2004). *A demographic portrait of Asian Americans*. New York: Russell Sage Foundation and Population Reference Bureau.
- Xu, Y., Okuda, A., Hser, Y-L., Hasin, D., Lui, S-M., Grant, B.F., & Blanco, C. (2011). Twelve-month prevalence of psychiatric disorders and treatment-seeking among Asian Americans/Pacific Islanders in the United States: Results from the National Epidemiological Survey on Alcohol and Related Conditions. *Journal of Psychiatric Research, 45*(7), 910-918.
- Yeung, A., Chan, R., Mischoulon, D., Sonawalla, S., Wong, E., Nierenberg, A. A. (2004). Prevalence of major depressive disorder among Chinese-Americans in primary care. *General Hospital Psychiatry, 26*(1), 24-30.
- Yoo, H.C., & Lee, R.M. (2008). Does ethnic identity buffer or exacerbate the effects of frequent racial discrimination on situational well-being of Asian Americans? *Journal of Counseling Psychology, 55*(1), 63-74.
- Yinger, J. M. (1986). Intersecting strands in the theorization of race and ethnic relations. *Theories of race and ethnic relations, 20-41*.