# Coping with Racial Discrimination: Coping Strategies, Critical Ethnic Awareness, and Psychosocial Resources for Asian Americans

by

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## DEDICATION

This dissertation is dedicated to my wife, Wooksoo (욱수), and my precious daughters, Claire (다혜) and Sydney (나영), with much love and appreciations for their unconditional love and sacrifice that made everything that I do possible and meaningful.

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**ABSTRACT**

**Purpose**: Despite rapid growth of the Asian Americans population in recent decades, less research exists on racial discrimination of Asian Americans than of other minority groups. Current literature on Asian American racial discrimination indicates that ethnic identity and social support mediate the effect of racial discrimination on depression. However, past studies have not explored how Asian Americans' nativity status influences coping with racial discrimination. This study examines the influence of emotional support, critical ethnic awareness, and coping strategies on the impact of racial discrimination on depression among Asian Americans, using four hypotheses in racial discrimination context: 1) Discrimination-related factors (*racial discrimination experience, discrimination appraisal, and perpetual foreigner stress*) will be associated with depressive symptoms, after controlling for socio-demographic factors; 2) Psychosocial resources (*emotional support, proportion of Asian Americans in daily encounters, and critical ethnic awareness)* will be associated with depressive symptoms, controlling for socio-demographic and discrimination-related factors; 3) Racism-specific coping strategies will relate significantly with depressive symptoms, more so than other predictors, including discrimination-related factors, psychosocial resources and general coping styles; and 4) Discrimination-related factors will be differentially associated with depressive symptoms among U.S.-born Asian Americans, compared to foreign-born Asian Americans, after controlling for socio-demographic factors.

**Method**: 410 Asian American adult respondents completed an online survey administered in June and July of 2010. The Center for Epidemiologic Studies' Depression Scale served as the outcome measure to assess for respondents' depressive-symptom level. For predictor variables, the General Ethnic Discrimination Scale and Perpetual Foreigner Stress Scale measured racial discrimination experiences and stress related to unfair treatments due to their racial or ethnic background; the Social Support Measure assessed emotional support; Critical Awareness Scale measured critical ethnic awareness; and the Coping Strategies Inventory measured general and discrimination-specific coping. 390 cases were available for hierarchical regression analyses, with each of the five predictor dimensions added in successive analyses. The analyses examined the association between racial discrimination and level of depressive symptoms, while considering emotional support, critical ethnic awareness, and coping strategies as predictors, stratified by the respondents' nativity status.

**Results**: The results reported were controlled for socio-demographic factors. Analysis regarding the first hypothesis indicated perception as "perpetual foreigner" (PFS) as associated with depressive symptoms among respondent Asian Americans. Analysis regarding the second hypothesis indicated three psychosocial resources as associated with depressive symptoms after taking demographics and discrimination-related variables into account: *emotional support from friends* and *family*, and *thinking about self in social context*. Analysis regarding the third hypothesis indicated *self-criticism*, as a racism-specific coping strategy, as associated with depressive symptoms.

Analysis regarding nativity status, the fourth hypothesis, indicated general racial discrimination experience (RDE) as a predictor of depressive symptoms among

individuals in the immigrant subgroup, while PFS acted as a predictor of depressive symptoms among individuals in the U.S.-born subgroup.

**Implications**: The findings demonstrated that perception as a perpetual foreigner serves as a stressor in addition to the general racial discrimination that contributed to depressive symptoms among U.S.-born Asian Americans, but not for foreign-born Asian Americans. The results show that engagement coping strategies may not buffer the negative mental health impact of racial discrimination, but employing disengagement coping strategies may exacerbate the depressive symptoms among U.S.-born Asian Americans. Future research needs to take the nativity status into account when examining the relationship between racial discrimination and depressive symptoms in the Asian American population. Additionally, researchers and practitioners need to examine what type of coping styles and/or strategies would best benefit Asian Americans in buffering the impact of racial discrimination experiences.

# CHAPTER 1

# INTRODUCTION

## 1.1 Purposes and Aims of the Dissertation Research

Published studies consistently support the concept of adverse physical and mental health consequences due to racial discrimination (Paradies, 2006; Williams, Costa, & Leavell, 2010; Williams & Mohammed, 2009). Recently, examining how racial-discrimination experience affects Asian Americans has gained interest, despite enduring misconceptions about Asian Americans as a 'model minority[1]' (e.g., Gee, Ro, Shariff-Marco, & Chae, 2009; Kuo, 1995; D.W. Sue, Bucceri, Lin, Nadal, & Torino, 2009). Despite overwhelming evidence supporting the existence of negative effects of racial discrimination in ethnic-minority communities, research efforts are lacking in the area of what individuals and/or communities might do to protect themselves from these chronic stressors. This dissertation study seeks to address the following three general research aims: 1) to examine whether the relationship between racial discrimination and depressive symptoms differs between Asian immigrants & U.S.-born Asians; 2) to investigate the association between critical ethnic awareness and depressive symptoms; and 3) to test whether discrimination-specific coping strategies contribute to protect mental health beyond general coping styles.

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[1] Please see Wong, F. Y., & Halgin, R. (2006). The 'model minority': Bane or blessing for Asian Americans? *Journal of Multicultural Counseling and Development, 34*(1), 38-49. for detailed discussion of the concept "Model Minority" and its adverse effects.

## 1.2 Significance of the Dissertation Topic

The 2000 U.S. Census highlighted the fast-changing landscape in terms of race and ethnicity. By the year 2050, the Census Bureau has projected that people of color will become a majority of the United States population (U.S. Census Bureau, 2004). As the nation continues to become more multiethnic, the mainstream U.S. culture that largely reflects and reinforces white, Eurocentric middle-class values is seen as threatened. The *minority threat hypothesis* (Ruddell & Urbina, 2004) suggests that as the number and size of minorities increase, so do the means to control and curtail their rising presence. The resistance to this transformation of the U.S. ethnic tapestry is evident in recent surges to pass "English Only" legislation at state level, and constant effort to further tighten existing immigration policies to restrict and prevent "unwanted" immigrants – legal and illegal – from entering the U.S.

At the individual level, the minority threat hypothesis suggests heightened racial discrimination, as majority whites continue to resist growing racial diversity (Ruddell & Urbina, 2004). Therefore, the effects of racial discrimination are more likely to persist and affect the lives of ethnic minorities in the coming future. Hence, researchers need to gain better understanding of how coping strategies could work to protect and/or attenuate ethnic minorities' mental health in response to effects of racial discrimination.

As Smedley and Smedley (2005) aptly titled their seminal article in the journal *American Psychologist*, there is mounting empirical evidence to suggest that "race as biological construct is fiction and racial discrimination as a social problem is real" (p. 16). Some researchers use the terms 'stereotyping,' 'prejudice,' and 'discrimination' interchangeably. However, conceptual distinctions can be made such that 'stereotyping'

is defined as mostly cognitive, ‘prejudice’ as attitudinal, and ‘discrimination’ as behavioral manifestations of negative perception towards a socially-defined group and its members (Dion, 2002; Dovidio, 2001; Fiske, 1998). Racial discrimination is commonly referenced as a special form of prejudice, which is defined as the “positive or negative attitude, judgment, or feeling about a person that is generalized from attitudes or beliefs held about the group to which the person belongs” (Jones, 1997). Racial discrimination adds three distinct constructs to prejudice: it assumes race as a *biological construct*; believes that one’s own race is *superior to others*; and legitimizes and rationalizes institutional and culture practices that maintain and perpetuate *hierarchical domination* of one racial group over another (Zarate, 2009). Moreover, due to the nature of racial discrimination being contextually defined as “dominant/non-dominant racial group interactions,” a concept of reverse racial discrimination becomes “a nonsensical construct” (Harrell, 2000, p. 43). Though the concept presupposes the structural nature of racial discrimination, occurrence of racial discrimination at a structural level is difficult to examine empirically, even though it is the underlying foundation upon which individual experiences of racial discrimination emerge. Rather, ethnic minorities tend to experience and recognize racial discriminations that are reflected and manifested through interpersonal encounters.

Although racial discrimination negatively affects all those involved, researchers agree that ethnic minorities bear significant burdens of racial discrimination through incurring adverse physical and psychological disparities (see Brondolo, Brady ver Halen, Pencille, Beatty, & Contrada, 2009; Paradies, 2006; Pascoe & Smart Richman, 2009; Thompson-Miller & Feagin, 2007; Williams, et al., 2010). Past empirical studies have

shown that experiences of racial discrimination are significantly associated with adverse mental and physical health among people of color. However, most of these studies have come from studies with African Americans (e.g., Kressin, Raymond, & Manze, 2008; Williams & Harris-Reid, 1999; Williams & Mohammed, 2009; Williams, Neighbors, & Jackson, 2003), limiting our understanding of how other ethnic minorities may fare with the experience of racial discrimination. Indeed, recent literature reviews on the relationship between racial discrimination and mental health have pointed out the paucity of research on Asian Americans (Gee, et al., 2009; Kressin, et al., 2008; Pascoe & Smart Richman, 2009; Williams, et al., 2010; Young & Takeuchi, 1998), even though Asian Americans tend to experience comparable levels of racial discrimination with fewer social and political capitals (Alvarez, 2009; Chou & Feagin, 2008; D.W. Sue, et al., 2009; U.S. Commission on Civil Rights, 1992). Results from these studies have found the significant positive association between racial discrimination and adverse mental health outcomes among Asian Americans (Gee, Spencer, Chen, Yip, & Takeuchi, 2007; Noh, Kaspar, & Wickrama, 2007; Song-Bernstein, Park, Shin, Cho, & Park, 2009; Yip, Gee, & Takeuchi, 2008; Yoo & Lee, 2008).

There are two identified gaps in the literature. First, researchers have limited understanding of how racial discrimination affects ethnic minorities other than African Americans, such as Asian Americans. Asian Americans' growing demographic through steady immigration to the U.S. presents a new challenge to the idea of contemporary racism. Prior conceptualizations of racism are limited to a black-white paradigm, which fails to incorporate the experiences of Asian Americans and other recent immigrants.

More importantly, Asian Americans' experiences of racial discrimination may be

intricately tied to their immigration status. Acculturation studies involving historically recent immigrant communities, such as Asian Americans, have demonstrated that immigrants and their U.S.-born counterparts cope with different bio-psychosocial challenges and adversities due to their generational status (Abe-Kim et al., 2007; Rhee, 2009; Takeuchi et al., 2007; Zhou & Xiong, 2005). For example, using a nationally representative community survey sample of Asian Americans, Abe-Kim and her colleagues found that U.S.-born Asian Americans sought mental health services at a significantly higher rate than their immigrant counterparts (Abe-Kim, et al., 2007). Using the same national survey, Yip and her colleagues (2008) also found that age and immigration statuses play significant roles in the interplay between psychological distress, ethnic identity, and racial/ethnic discrimination. Additionally, using another nationally representative survey, NESARC[2], Breslau and Chang (2006) found that U.S.-born Asian Americans had significantly higher risk for various psychiatric disorders – including mood, anxiety, and substance-use disorders – compared to foreign-born Asian Americans. They also found that the risk for psychiatric disorders converged between U.S.-born and foreign-born Asian Americans with the longer duration of residence in the U.S. for the foreign-born (Breslau & Chang, 2006). Therefore, generalizing life experiences and psychological well-being of diverse Asian American groups is irrelevant without taking into account their cultural, as well as immigration, history.

Asian Americans have played and will continue to play a key role in shaping dynamics of race relations in the United States. Thus, a fresh alternative must be brought to the black-white paradigm to include the experiences of other ethnic minorities and

[2] National Epidemiological Survey of Alcohol and Related Conditions

their immigration history, in order to broaden the discourse so that it reflects the shifting racial compositions in contemporary U.S. society.

Second, researchers know little about how targets of racial discrimination would cope with such unfair treatment (Brondolo, Brady ver Halen, et al., 2009; Gee, et al., 2009; Jones, 1997). Findings of previous research on effects of racial discrimination on mental health of ethnic minorities have established the consistent association between effects of racial discrimination and the negative mental and physical health outcomes among ethnic minorities. However, it only establishes that racial discrimination is a risk factor associated with mental health. Researchers have not yet presented sufficient theory, testing, or evidence on the *processes* that lead from racial discrimination to a mental health outcome, such as depression. Therefore, the focus of the research must shift to the targets of racial discrimination (Mellor, 2004) in order to investigate the processes ethnic minorities experience in response to encounters of racial discrimination (Gee, et al., 2009; Vega & Rumbaut, 1991). More specifically, it is important to identify various coping strategies that ethnic minorities use to best offset the impact of racial discrimination and evaluate their effectiveness (Brondolo, Brady ver Halen, et al., 2009; Kuo, 1995; Mellor, 2004), so that prevention and intervention strategies can be tailored to each ethnic minority group.

# CHAPTER 2

# THEORETICAL BACKGROUND

## 2.1 Racial Discrimination as a Chronic Source of Stress

Racial discrimination has been conceptualized as a legitimate source of stress for ethnic minorities in research studies of ethnic minorities (e.g., Clark, Anderson, Clark, & Williams, 1999; Gee, et al., 2009; Landrine, Klonoff, Corral, Fernandez, & Roesch, 2006; Sanders Thompson, 1996; Williams & Harris-Reid, 1999; Williams, et al., 2003; Williams, Yu, Jackson, & Anderson, 1997). Unlike stressful 'events,' chronic stressors have a complex nature that is often based on societal and structural grounds. One of three classes of chronic stressors Pearlin (1999) has identified is status strains, a category under which racial discrimination falls. Status strains are defined as "stressors that arise directly from one's position in social systems having unequal distributions of resources, opportunities and life chances, power, and prestige," (Pearlin, 1999, p.164 ) such as socioeconomic status (SES), occupations, race and ethnicity, gender, and age. Unlike other types of stressors, racial discrimination is unique in that it is rooted in historical and institutional settings (Bonilla-Silva, 1997; Williams & Williams-Morris, 2000).

Racial discrimination is based on entrenched beliefs rooted in historical and sociopolitical prejudices. Bonilla-Silva, in laying out his conceptualization of racism on structural interpretation, argues that "the more dissimilar the races' life chances, the more racialized the social system" (Bonilla-Silva, 1997, p. 470). In a racialized society,

therefore, racial minority groups struggle for systemic changes at individual, social, and political level. At an interpersonal level, racial discrimination is experienced verbally and behaviorally, making manifestation and recognition relatively apparent.

Past research has revealed important scientific findings on general prejudice and racial discrimination. The information has uncovered how deeply racism is rooted in our everyday lives and experiences. However, additional research is needed on how ethnic minorities might cope with racial discrimination. Keeping consistent with a stress and coping framework (Lazarus & Folkman, 1984), it is equally important to divert research attention to coping processes of ethnic-minority individuals who must deal with consequences of racial discrimination on interpersonal as well as institutional levels.

## 2.2 Critical Consciousness and Psychological Empowerment

Without awareness of the repetition of discriminatory events across various contexts, individually and collectively among racial/ethnic minorities, attributing discriminatory behaviors to structural and institutional racism is difficult. Likewise, building an empirical association between racial discrimination and mental health among ethnic minorities would not make sense conceptually if there is a weak theoretical framework linking individual experiences to structural forces. In this regard, the concepts of critical consciousness and psychological empowerment have been valuable in conveying how ethnic minority status may be closely linked to mental health.

Critical consciousness is a process in which subjugated people first gain understanding of how a series of individually targeted discriminatory behaviors are reflective of a larger systemic cultural domination, perpetuated and strengthened through

historical subjugation by the power-holding majority group (Freire, 1974). There are three psychological processes involved in developing critical consciousness: group identification, group consciousness, and self and collective efficacy (Gutiérrez, 1994, 1995). Being aware that personally experienced racial discrimination is inherently linked to structural and institutional racism involves critical ethnic consciousness. For ethnic minority group members to become critically conscious, they first need to identify their ethnic membership as one of the central self-concepts (i.e., group identification; Gurin, Miller, & Gurin, 1980), understand inherent status and power differentials in U.S. society (i.e., group consciousness; Gutiérrez, 1995), and perceive one's self as active subject rather than passive object (self and collective efficacy; Freire, 1974; Gutiérrez, 1995).

Indeed, mistakenly attributing societal-based problems to individual deficiency only feeds into the erosion of self-concept that further demoralizes individuals' sense of worth (Pearlin, 1987). The capacity of ethnic minority individuals to effectively develop critical consciousness has been described as "psychological empowerment" (Gutiérrez, 1995; Molix & Bettencourt, 2010). Empowerment theory suggests that individuals facing racial discrimination experiences are more likely to understand that their personal experiences are bound in a social and historical context and that the roots of racial inequality continue to perpetuate in present society (Freire, 1970; Gutiérrez, 1994; Nagda & Zúñiga, 2003). Ethnic minorities with psychological empowerment work to increase individual, interpersonal, and political influences, which should protect or improve their mental health against racial discrimination (Molix & Bettencourt, 2010).

For individuals to protect their mental health from chronic exposure to racial discrimination, empowerment theory suggests that psychologically empowered

individuals are more likely to choose proactive coping strategies that not only protect mental health, but attempt to redress structural nature of racial discrimination. In the context of stress and coping nomenclature, these proactive coping strategies may translate to engagement coping (Carver, Scheier, & Weintraub, 1989; Tobin, Holroyd, Reynolds, & Wigal, 1989) or active/approach-type coping (Billings & Moos, 1984; Lazarus & Folkman, 1984). Although empowerment and coping perspectives differ in terms of their theoretical orientations – the empowerment perspective is concerned more with collective and structural solutions to the social issues, whereas the coping perspective attempts to analyze and provide individual-based solutions to the personally experienced phenomenon – conjoining both perspectives makes sense in addressing how to best deal with chronic stressors such as racial discrimination, because the phenomenon is simultaneously experienced individually and collectively.

## 2.3 Coping Functions, Processes, and Strategies

Past researchers contend that how persons respond to a psychosocial stressor ultimately determines the psychological outcome (e.g.,Lazarus & Folkman, 1984; Pearlin, 1987). According to the stress and coping theory, coping is defined as the process by which an individual attempts to manage and resolve, cognitively and behaviorally, stressful events (Lazarus & Folkman, 1984). In addition, individuals develop coping repertoires from their close network of people, such as family and their ethnic culture (Pearlin, 1993; Pearlin & Schooler, 1978). In this respect, coping is a functionally different cognitive and behavioral process than defense mechanisms of psychodynamic

theory[3] (Cramer, 1998). The coping process happens consciously and is therefore amenable to changes and potential intervention, whereas defense mechanisms operate as an unconscious process by definition and thus are not easily modifiable.

According to the stress and coping theory, *psychosocial stress* is defined as a socially derived, conditioned, and situated psychological process that leads to an individual's emotional distress (Lazarus, 1971; Mellor, 2004). The psychosocial stress paradigm allows researchers to illustrate the "racial discrimination – mental health" connection, accounting for its functional, interactive nature of dealing with multiple layers of systemic stressors inherent in experiences with racial discrimination (Mellor, 2004). Therefore, Lazarus and Folkman's stress and coping model has been used most often to illustrate the relations between racial discrimination and mental health (Brondolo et al., 2005; Clark, et al., 1999; Landrine, et al., 2006).

There are different ways of conceptualizing the coping process. Researchers have organized coping strategies into different categories according to their intended functions: Problem-focused versus emotion-focused coping (Lazarus & Folkman, 1984); approach- versus avoidance coping categories (Suls & Fletcher, 1985); active, passive, and social support seeking (Billings & Moos, 1984); and Carver and his colleagues' active, social support seeking, denial or disengagement, and positive reinterpretation (Carver, et al., 1989). Generally, past research findings support the hypothesis that problem-focused

[3] According to Cramer (1998), both coping and defense mechanisms are adaptational processes. However, process of coping "involves purpose, choice, and flexible shift, adheres to intersubjective reality and logic, and allows and enhances proportionate affective expression," whereas defense mechanisms are "compelled, negating, rigid, distorting of intersubjective reality and logic, allows covert impulse expression, and embodies the expectancy that anxiety can be relieved without directly addressing the problem" (Haan, 1977, cited in Cramer, 1998).

and/or approach-type coping strategies are effective in protecting mental health (Landrine, et al., 2006; Lazarus & Folkman, 1984; Mellor, 2004; Taylor & Stanton, 2007).

Some researchers, however, have found that problem-focused and/or approach-type coping strategies may not be useful for every stress, but only effective for stressors that are amenable to change (see the review by Taylor & Stanton, 2007). Likewise, researchers also found emotional and/or avoidance-type coping strategies effective in specific situations that are short-term and uncontrollable, or in cultural societies different from westernized, Eurocentric culture (Chun, Moos, & Cronkite, 2006; Endler & Parker, 1990; Suls & Fletcher, 1985; Zeidner & Saklofske, 1996). Hence, the effectiveness of the coping strategies is determined, not by the strategies themselves, but by the contextual circumstances where the stress is appraised and coping process is warranted.

As Pearlin and Schooler (1978) stated, one of the purposes of coping is to defend one's psychological functioning threatened or compromised by negative social experience. Whereas Lazarus and Folkman (1984) proposed a dual aspect of the coping process (problem- and emotion-focused coping), Pearlin and his colleagues (e.g., Pearlin & Schooler, 1978) saw the function of coping in three ways: 1) by eliminating or modifying conditions giving rise to problems (likens to active problem solving); 2) by perceptually controlling the meaning of experience in a manner that neutralizes its problematic character (e.g., cognitive restructuring); and 3) by keeping the emotional consequences of problems within manageable bounds (e.g., emotion regulation and seeking emotional support).

More recently, Tobin and his colleagues (Tobin & Griffing, 1995; Tobin, et al., 1989) have shown via a statistical method of factor analyses of their coping strategies

inventory (CSI) that coping can be structured in a three-level, hierarchical model. The first level of the coping structure includes eight primary factors: problem solving, cognitive restructuring, emotional expression, social support, problem avoidance, wishful thinking, self-criticism, and social withdrawal. Tobin's eight primary factors reflect Lazarus and Folkman's (1984) and Suls and Fletcher's (1985) coping categories. The second level includes four secondary factors: problem engagement, emotion engagement, problem disengagement, and emotion disengagement. The third level includes two tertiary factors: engagement vs. disengagement.

Inherent in the coping structure of CSI is a reflection of sociocultural influences, which assume an important role of psychosocial resources. For instance, both expressing emotion and social support loaded on to the secondary factor of emotion engagement. One of the purposes of seeking social support may be to set up opportunities to unload uncontainable emotions engendered through experiencing a stressful situation.

## 2.4 Psychosocial Resources

Although researchers have concluded that there are numerous factors that aid in the coping process, little consensus exists as to what would constitute as psychosocial "resources." Sometimes loosely identified as 'personality traits' or 'social support,' it appears that there is no mutually agreed-upon operationalization of psychosocial resources (Taylor & Stanton, 2007). Generally speaking, researchers listed possible candidates, such as optimism (Scheier & Carver, 1992), psychological control or mastery (Bandura, 2006), self-esteem (DuBois & Flay, 2004), and social support (Cobb, 1976) as essential psychosocial resources that aid in one's ability to manage stress and in turn

predict better mental health outcomes. Additionally, researchers have pointed out that ethnic identification (Phinney, 1992; Phinney & Ong, 2007) and acculturation (Hwang & Ting, 2008; Suinn, 2010) status may be essential factors predicting mental health outcomes among Asian Americans.

Taken together, psychosocial resources may be operationalized as personal and/or collective capitals that individuals may access in times of stressful events. In the context of a stress and coping framework, these psychosocial resources may influence both primary and secondary appraisal processes when individuals assess what type or level of intervention, if at all, would be needed to maintain their psychological homeostasis. In fact, the researchers who study stress and coping framework have also theorized that the coping process may only need to be activated when individuals become aware that the existing psychosocial (i.e., coping) resources are insufficient in fending off stress-inducing events. Thus, in addition to aiding the coping process itself, psychosocial resources can be thought as initial gatekeepers of stresses.

## 2.5 Acculturation and Nativity Status

Volumes of studies have been carried out that support the critical influence of level of acculturation and nativity status on physical and mental health among Asian Americans. First, studies have shown that level of acculturation has great influence on psychological health (Breslau & Chang, 2006; S. Sue, 1994; Takeuchi, Chun, Gong, & Shen, 2002). For example, Shen and Takeuchi (2001) found that, among Chinese Americans, higher acculturation predicted higher depressive symptoms through an indirect path that included high stress level. Lueck and Wilson (2010) found that English

and native language proficiencies, discrimination, family cohesion, and migratory context were all strong predictors of acculturative stress among the representative sample of Asians in the U.S. Lueck and Wilson's findings corroborate other studies' findings that suggest that acculturation process is unavoidable and anticipated process that contributes to lower mental health status among Asian Americans, particularly among those who try to live beyond their respective ethnic enclaves.

Nativity, or immigration, status also impacts the mental health outcome among Asian Americans (Takeuchi, Alegría, Jackson, & Williams, 2007; Takeuchi, Zane, et al., 2007). Earlier studies focused on particular individual characteristics, such as hardiness (Kuo & Tsai, 1986; Maddi, 2002; Maddi & Khoshaba, 1994) or syndrome of personality (Boneva & Frieze, 2001) that purported to shield immigrants from adverse consequences of immigration and acculturation. Recently, however, research on mental health service utilization revealed that many immigrants are unable to access existing mental health services due to language and cultural barriers, debunking the myth that Asian immigrants are immune from mental health problems (Abe-Kim, et al., 2007; W. Kim & Keefe, 2010; Kung, 2004). Recent studies also point to the critical impact of nativity status on behavioral health, such as alcohol consumption (I. Kim & Spencer, 2011; W. Kim, Kim, & Nochajski, 2010; Lum, Corliss, Mays, Cochran, & Lui, 2009) and gambling (W. Kim, Kim, & Nochajski, 2011)

# CHAPTER 3

# LITERATURE REVIEW

The research on racial discrimination has involved mainly African Americans in the past, but researchers have begun to pay more attention to other ethnic minority groups, such as Latino and Asian Americans. The literature review conducted for this dissertation research primarily discusses findings on the relationship between racial discrimination and mental health outcomes, and its correlates among Asian Americans.

## 3.1 Racial Discrimination and Coping Strategies.

As noted earlier, specific cognitive and behavioral strategies to cope with adverse consequences of racial discrimination have been inadequately addressed in empirical research on Asian Americans. Findings from the available studies indicate that use and effectiveness of coping strategies tend to differ by gender (Liang, Alvarez, Juang, & Liang, 2007), ethnicity (Noh, Beiser, Kaspar, Hou, & Rummens, 1999; Noh & Kaspar, 2003), acculturation status or ethnic identification (Kuo, 1995; Yoo & Lee, 2005), and personality traits (Roesch, Wee, & Vaughn, 2006).

Current research findings are inconsistent in clarifying which types of coping strategies are more effective in dealing with racial discrimination. Some studies indicate that emotion-focused coping strategies are used more often among Asian Americans in response to racial discriminatory events. For instance, Noh and his colleagues (Noh, et al., 1999) reported that racial discrimination-related stress was associated with depressive

symptoms among Southeast Asians in Canada. Contrary to the popular stress and coping framework, however, forbearance – a form of emotion-focused, avoidance coping – was shown to decrease the strength of association between racial discrimination-related stress and depressive symptoms. Kuo (1995) found that a community sample of Asian Americans in Seattle, Washington, used emotion-focused coping strategies to cope with racial discrimination. Moreover, those respondents who adhered to the traditional Asian cultural values and identified closely with the minority status tended to increase reliance on emotion-focused coping strategies (Kuo, 1995). Kuo's findings are consistent with later findings (Noh, et al., 1999; Sanders Thompson, 2006) among Asian Americans.

Findings from other studies, however, support more mainstream coping hypothesis where problem-focused coping is used effectively to decrease the mental health symptoms. For example, Noh and Kaspar (2003) contradicted findings of Noh and his colleagues (Noh, et al., 1999), where problem-focused coping had a better outcome than emotion-focused coping in attenuating the association between racial discrimination and mental health among Korean immigrants living in Toronto. Likewise, Yoo and Lee (2005) also found that cognitive restructuring and problem-solving coping strategies buffered the association between racial discrimination-related stress and well-being only when the level of racial discrimination was low.

Efficacy of coping strategies employed to deal with racial discrimination-related stress, for example, may determine whether a specific versus generic coping strategy would be used. For example, when an Asian American encounters racial discrimination and engages in a coping process to attenuate the negative impact of an event, the person needs to know whether the specific coping strategies being engaged will help to decrease

the level of negative feelings. The person's past success or failure with coping with racial discrimination will likely determine the choice of a specific coping strategy or a collection of coping strategies in response to present and/or future encounters with racial discrimination.

### 3.2 Racial Discrimination and Mental Health.

The first studies that examined the connection between racial discrimination and mental health outcomes were among African Americans (Williams, et al., 2010; Williams & Harris-Reid, 1999). The topic has since garnered the attention of researchers interested in discrimination among Asian Americans (e.g., D. H. Chae et al., 2008; Gee, 2002; Gee, et al., 2009; Kawakami, Dunn, Karmali, & Dovidio, 2009; Kuo, 1995; Lee, 2005; Noh, et al., 1999; Spencer & Chen, 2004; Derald Wing Sue, et al., 2009; Yip, et al., 2008; Yoo & Lee, 2005).

For instance, using Refugee Resettlement Project (RRP) data collected among Southeast Asian refugees in Vancouver, Canada, Noh and his colleagues (Noh, et al., 1999) found that experience with racial discrimination was significantly associated with higher depressive symptoms and this relationship was moderated by "forbearance" coping strategy. Gee and his colleagues (Gee, et al., 2007), using Asian respondents' data from the National Latino and Asian American Study (NLAAS), found that everyday discrimination was significantly associated with the past-year depressive and anxiety disorders, even after controlling for other relevant factors. In another study using the NLAAS Asian subset of data, researchers found that reports of racial discrimination were

positively associated with psychological distress, which was moderated by ethnic identity and age (Yip, et al., 2008).

Overall, researchers have focused on establishing the connection between racial discrimination-related stress and adverse mental health outcomes among Asian Americans. At the same time, researchers have examined various psychosocial resources that moderate the impacts of racial discrimination on mental health in this population. The results from these studies suggest that experience with racial discrimination is associated with Asian Americans' mental health.

### 3.3 Racial Discrimination and Psychosocial Resources.

According to Taylor and Stanton (2007), psychosocial[4] resources include "relatively stable individual differences in optimism, a sense of mastery, and self-esteem, and in social support (p. 378)," which aid the coping processes. Psychosocial resources are conceptualized as a buffering or protecting role against impact of psychosocial stress on mental health outcome (Lazarus, 1971; Pearlin, 1999; Pearlin & Schooler, 1978; Taylor & Stanton, 2007). Additionally, researchers have examined and subsequently supported that, along with these psychosocial resources, ethnic identification and acculturation status may also play critical roles in ethnic minorities' mental health status (Ahn, Kim, & Park, 2008; Bjorck, Cuthbertson, Thurman, & Lee, 2001; Chen & Danish, 2010; B. S. K. Kim & Omizo, 2005; Neill & Proeve, 2000; Wei, Heppner, Ku, & Liao, 2010; Yeh & Wang, 2000; Yip, et al., 2008; Yoo & Lee, 2005, 2009).

[4] Taylor and Stanton (2007) used the term "coping" instead of "psychosocial" resources. Although semantically different, the list of which authors had used to characterize coping resources may be conceptually synonymous with the term *psychosocial resources*, which is more inclusive than restricting the resources to the purpose of coping specifically. Therefore, the term psychosocial resources will be used throughout this paper.

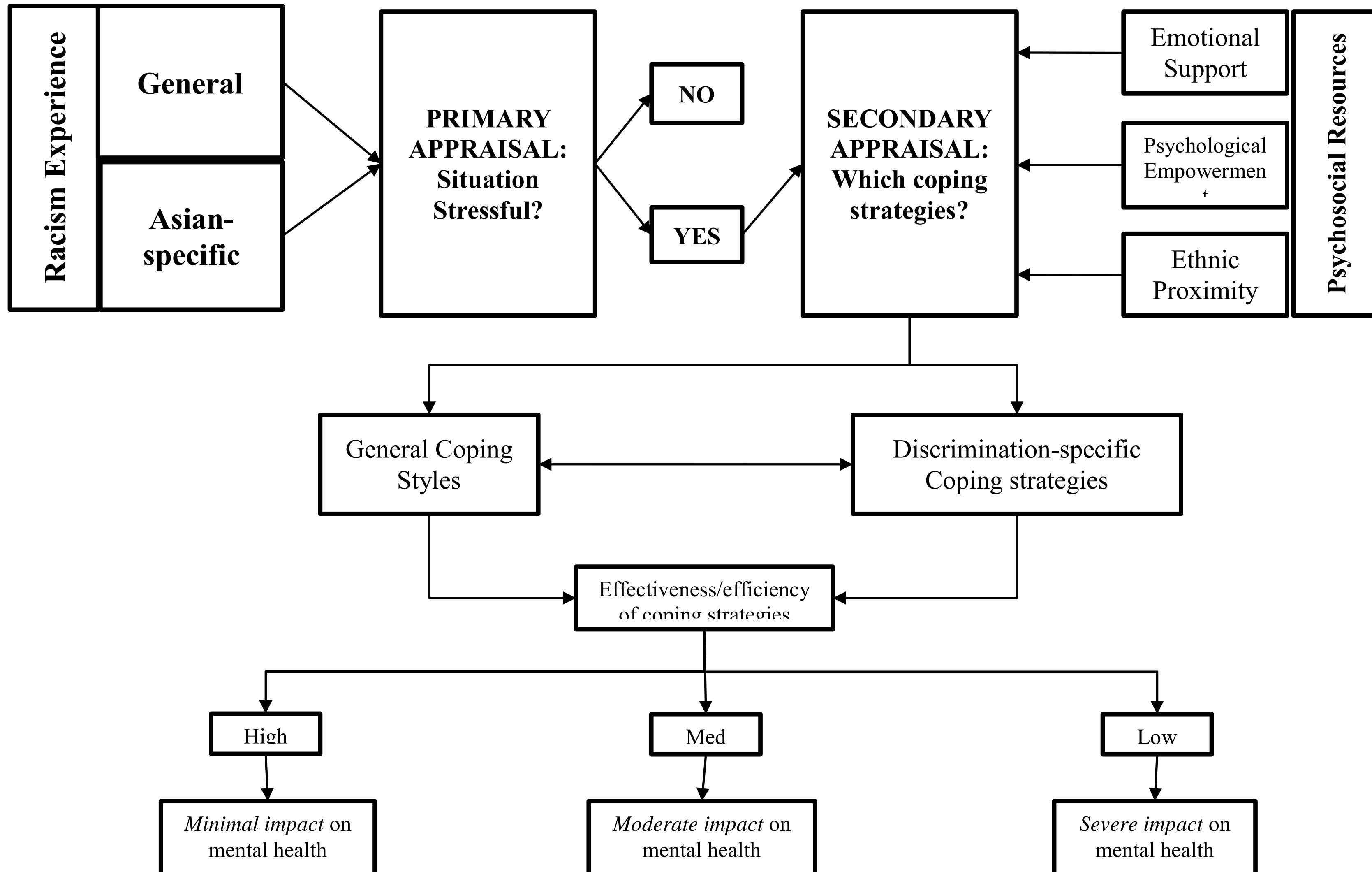
Following this framework, researchers have tested the shielding effects of these psychosocial resources on the relationship between racial discrimination and mental health outcomes among Asian Americans. The researchers have thus far identified two psychosocial resources salient to Asian Americans: ethnic identity and social support. First, ethnic identity has been shown to buffer the negative influence of racial discrimination on mental health among Asian Americans (D. H. Chae, et al., 2008; Mossakowski, 2003; Noh & Kaspar, 2003; Yoo & Lee, 2005). For example, Noh and Kaspar (2003) interviewed over 600 Southeast Asian refugees living in Canada and found that use of forbearance – a form of passive acceptance and avoidance – was especially effective in mediating the association between racial discrimination and depressive symptoms for those who reported high level of ethnic identity. Another study by Mossakowski (2003) found that ethnic identity cushioned the racial discrimination-related stresses among the representative community sample of Filipino Americans in San Francisco and Honolulu. A recent study by Chae and his colleagues (D. H. Chae, et al., 2008) found that ethnic identification moderated the impact of racial/ethnic discrimination on the prevalence of alcohol abuse and dependence among the representative sample of Asian Americans in NLAAS survey.

Other studies have looked at the buffering effects of social support on racial discrimination-related stress (e.g., Gee et al., 2006; Noh & Kaspar, 2003). In general, social support has been understood as an effective coping resource for people with various psychological stresses (Pearlin, 1985). Empirical research yields inconsistent findings regarding the effectiveness of social support, however. For example, Noh and Kaspar (2003) found that, among Koreans living in Canada, having social support rooted

in their ethnic group affiliation resulted in the greatest impact in terms of safeguarding from the effects of racial discrimination. Gee and his colleagues (Gee, et al., 2006), on the other hand, reported that emotional support was associated with less health risk, whereas instrumental support was associated with more health risk among Filipinos living in Honolulu, but not in San Francisco. As evidenced by the dearth of empirical research on the effects of social support on the association between racial discrimination and mental health outcome (Brondolo, Brady ver Halen, et al., 2009), researchers need to focus more on how social support either assists or burdens individuals in dealing with the experience of racial discrimination.

Taken together, this study presents a framework (see figure 1) that incorporates theoretical perspectives discussed so far and uses it to describe how Asian Americans may respond to racial discrimination experience using various coping methods, aided by psychosocial resources.

**Figure 1. Process model of coping with racial discrimination among Asian Americans**



According to figure 1, when Asian Americans encounter racial discrimination, we must first recognize it as such. Then we assess whether the experience is stressful. If it is not, then the coping process stops there. However, if we are to appraise the situation as stressful, then we engage in secondary appraisal where we consider coping options. An appraisal of a situation as stressful is contingent upon what kinds of psychosocial resources we may possess. In certain circumstances, we might first look to their general coping styles – but we also might consider using situation-specific coping strategies. The selection of one or a set of coping methods will depend on consideration between two coping dimensions, which will result in effective and efficient ways to resolve the stress, and ultimately have positive consequences on our mental health.

# CHAPTER 4

# RESEARCH METHODOLOGY & DESIGN

Previously, no data set allowing for the examination of the role of coping strategies as a considering factor in the relationship between racial discrimination and mental health among Asian Americans existed. Therefore, this dissertation research includes original data collection in order to examine the proposed hypotheses. The data were collected via an online survey, using Qualtrics Research Suite[5], available through the University of Michigan's Information and Technology Services. The Tailored Design Method (Dillman, Smyth, & Christian, 2009) was followed to achieve optimal responses from the pool of potential participants.

## 4.1 Sample and Procedure

The eligibility criteria to participate in this dissertation study were as follows: 1) individuals from Asian ethnic background; 2) at least 18 years old; 3) a legal resident of the U.S.; and 4) self-identified as Asian or Asian Americans. English literacy was an implicit eligibility criterion as the survey was only available in English. Respondents received a ten dollar VISA gift card in return for completing the survey.

Online survey methodology was used to recruit and administer survey questionnaires, employing a snowball sampling technique. Snowball sampling technique

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was chosen to maximize the number of participants from an ethnic group traditionally known as relatively difficult to recruit compared to general population. Conducting the survey online allowed potentially eligible respondents from across the country to participate without limitations of time and geographical area.

Potential participants were initially recruited by first arranging in-person meetings with several key Asian American community leaders in New York City. Using these professional contacts, as well as personal and professional networks, recruitment emails were sent out to various professional list-serves. Though designed for completion in 20-30 minutes, but due to the nature of online survey, the time spent completing the survey ranged widely from a few minutes to several hours. Preliminary analyses eliminated cases from respondents who spent only a few minutes to complete the survey to ensure data quality. The survey was collected between June 29, 2010 and July 14, 2010.

## 4.2 Measures

*General Ethnic Discrimination Scale* (GED; Landrine, et al., 2006): The GED scale is a modified version of the Schedule of Racist Events (SRE, Landrine & Klonoff, 1996) for use with any ethnic group, including black, Latinos, Asians, and white. An 18-item measure of perceived ethnic discrimination, GED scale measures discrimination as a type of stress consistent with the stress-and-coping model. It assesses discrimination in various settings (e.g., work, school, healthcare, public places) and each item is answered three times – frequencies in past year and lifetime and stress appraisal – to be consistent with appraisal of stress as conceptualized in stress and coping theory. The answer choices are presented with six-point Likert responses, ranging from *never* (0) to *almost*

*always* (6). The GED scale yields three subscales – 1) Recent (i.e., past 12 months); 2) Lifetime Discriminations, both with score ranges from 18-108, and 3) Appraised Discrimination, with scores ranging from 17-102. For this study, only two subscales – Recent Experience and Appraised Discrimination – were used (each subscale with 18 items), and they will be referenced as racial discrimination experience (RDE) and racial discrimination appraisal (RDA).

The measure has good psychometric properties with high internal consistency reliability and low standard errors, resulting in ranges of Cronbach's alphas for Recent, Lifetime, and Appraisal of .91-.94 for Asian-American subsample (Landrine, et al., 2006). Cronbach's alphas of RDE and RDA for this study's sample were .89 and .93, respectively. The mean score of RDE and RDA will be used in the analyses.

*Perpetual Foreigner Stress Subscale* (PFS, in AARRSI; Liang, Li, & Kim, 2004): PFS is a four-item subscale measure taken and modified from Asian American Racism-related Stress Inventory (AARRSI). PFS assesses level of stress stemming from perceiving self as a perpetual foreigner among Asian Americans. Four items ask to assess whether any of the following happened to respondent or someone s/he personally knows: "Someone you did not know spoke slow and loud at you," "Someone told you that all Asian people look alike," "You are told that 'you speak English so well" and "You are asked where you are really from." The answer choices were five-points Likert scale ranging from *this never happened to me or someone I know* (0) to *this happened and I was extremely upset* (4). Cronbach's alpha for this study's sample was .75. The mean score of PFS will be used in the analyses.

*Coping Strategies Inventory – Short* (CSI-S; Tobin, 2001; Tobin, et al., 1989): The CSI-S is an abbreviated version of CSI (Tobin, et al., 1989). The original version consisted of 72 items, which is designed to assess coping thoughts and behaviors in response to a specific stressor. Using five-point Likert responses from *not at all* (0) to *very much* (4), the CSI-S consists of 32 items with eight primary subscales (problem solving, cognitive restructuring, express emotions, social contact, problem avoidance, wishful thinking, self-criticism, and social withdrawal); four secondary subscales (problem engagement, problem disengagement, emotion engagement, and emotion disengagement); and two tertiary subscale items (engagement and disengagement). Cronbach's alpha ranges from .70 to .90 for primary, secondary, and tertiary subscales (Tobin, 1995).

The CSI-S can be administered in an open-ended manner or by requesting a particular type of stressor (Tobin, 2001). For this survey, 16 items from CSI-S were selected to accommodate time constraints due to the nature of online survey[6]. Respondents are asked to fill out the CSI-S twice. The first set assessed their general coping style by providing the following stem statement:

> *Next, we want to understand how you deal with stress. As you read through the following statements, please answer them based on how you handled GENERAL STRESSES. Please read each item below and determine the extent to which you used it in handling your past general stresses.*

[6] Please refer to the survey questions in the appendix.

The second set assessed coping strategies specifically in response to encounters with racial discrimination by providing the following stem statement:

*As you read through the following statements, please answer them based on how you handled PAST DISCRIMINATION BECAUSE OF YOUR RACE/ETHNICITY.*

Cronbach's alpha for general coping style was .63; and .88 for racial coping strategies. The mean score will be used in the analyses.

*The Center for Epidemiologic Studies Depression Scale* (CES-D; Radloff, 1977): The CES-D scale measures current level of depressive symptoms in the general population. Initially developed as a part of an epidemiologic survey, the scale has since proven reliable in internal consistency and validity across different population groups, including Asian Americans. The CES-D scale consists of 16 items with four-point response choices ranging from "rarely or none of the time" (1) to "most or all of the time" (4). Cronbach's alpha was .94. The mean score will be used in the analyses.

*Emotional Support* (ES; Kessler et al., 1994; Schuster, Kessler, & Aseltine, 1990): A truncated and modified version of the Social Interactions Scale (Kessler, et al., 1994; Schuster, et al., 1990) was used to measure positive emotional support. The 21-item measure assesses positive emotional support received from colleagues and coworkers, family members and relatives, and friends. The complete measure was cross-culturally validated with both Chinese (Hwang, Chun, Kurasaki, Mak, & Takeuchi, 2000) and Filipino (Gee, et al., 2006) Americans with Chronbach's alphas ranging from .78 – .89. Cronbach's alphas for emotional supports from colleagues, family, friends, and total were .94, .86, .94, and .91, respectively. The mean scores will be used in the analyses.

Asian American Proportion in Social Context: The proportion of Asian Americans in the respondents' social and institutional environment is assessed by asking the question: "think about different settings/contexts listed below that you have been a part of in the past 12 months, what was the approximate proportion of Asian Americans in those settings/contexts?" Six different social settings included friends, co-workers, neighborhood, workplace, professional organization, and school. The respondents used a six-point scale ranging from "less than 10%" to "51% or more" to indicate the proportion of Asian Americans the respondents routinely encounter in daily life. Cronbach's alpha was .78. The mean score is used in the analyses.

*Critical Racial/Ethnic Awareness* (Nagda & Zúñiga, 2003): Importance of racial or ethnic identity, race centrality, active thinking, and *thinking about self in social context* are measured by items used to measure Critical Social Awareness. *Racial/ethnic importance* is measured by asking "how important is your racial/ethnic identity to the way you think about yourself?" using four-point rating scale, *not very important* (0) to *extremely important* (3). *Racial/ethnic centrality* was measured by asking "how often do you think about being a member of your race/ethnic group?" using four-point rating scale, *hardly ever* (0) to *a lot* (3). *Influence of race/ethnicity* is measured by two questions: "indicate the extent to which something that happens in your life is affected by what happens to other people in your group?" and "how proud do you feel when a member of your racial/ethnic group accomplishes something outstanding?" using four-point rating scale, not at all (0) to a great deal (3).

*Active thinking* regarding racial or ethnic awareness is measured by asking respondents to respond to the following three items: "I think a lot about the influence that

society has on people"; "I really enjoy finding out the reasons or causes for people's opinions and behaviors"; and "I think a lot about the influence that society has on my thoughts, feelings, and behaviors." Cronbach's alpha was .86. The mean score is used in the analyses.

*Thinking about self in social context* was measured by asking respondents to respond to following four items: "I think a lot about how society disadvantages people in my racial/ethnic group"; "I don't think about the racial/ethnic group I belong to – I pretty much think of myself as an individual"; "I think about the influence that society has on who I am and what I can accomplish"; and "I don't think much about the privileges that my racial/ethnic group has in society." Cronbach's alpha was .62. The mean score is used in the analyses.

*Socio-demographic information*: Twelve socio-demographic characteristics were collected. Respondents' age was measured in years. *Male gender* was coded as 1 and *female gender* was coded as 0. Annual household income was measured using 15 income categories, with *Less than $20,000* as minimum category (1) and *More than $150,000* as maximum category (15). People-in-household measures the number of people living respondent's primary household.

Marital status was measured using four categories: single, never married (1); widowed (2); divorced or separated (3); and married or in domestic partnership (4). Respondent's nativity was coded as either U.S.-born (1) or foreign-born (0). For those respondents who immigrated to the United States, years since immigration was also collected.

The level of education was measured using eight educational categories: 1) Less than high school or GED; 2) Finished high school or GED; 3) less than college; 4) Associate degree; 5) Bachelor's degree; 6) Master's degree; 7) Ph.D.; and 8) Professional degree (e.g., MBA, MD, JD, etc.).

Employment status was initially measured using eight categories: employee at private industry (1); government employee (2); unemployed, not seeking work (3); self-employed (4); working without pay (5); unemployed, actively seeking work (6); full-time or part-time students (7); and homemaker (8). For analyses, employment status was reduced to a dichotomous variable, coded as 1 if currently working for pay, and coded as 0 if not.

Respondents' affiliation with the physical and mental health field was measured as a dichotomous variable, coded as 1 if respondent was in physical and mental health-related field, and coded as 0 if not.

Religious affiliation was coded using nine categories: Protestantism (1), Catholicism (2), Buddhism (3), Hindu (4), Muslim (5), Judaism (6), Agnostic or atheist (7), no religion (8), and others (9). Religious participation was measured using the frequency of attendance at religious services in the past 12 months using 6 categories: never (0), less than once a month (1), once a month (2), two to three times a month (3), once a month (4), two to three times a week (5), and daily (6).

## 4.3 Study Hypotheses

The four hypotheses proposed for this dissertation study:

### 4.3.1 Hypothesis 1

Discrimination-related factors (*racial discrimination, discrimination appraisal, and perpetual foreigner stress*) will significantly be associated with depressive symptoms as measured by CES-D score, after controlling for socio-demographic factors.

### 4.3.2 Hypothesis 2

Psychosocial resources (*emotional support, proportion of Asian Americans in daily encounters, and critical ethnic awareness)* will be significantly associated with CES-D score, controlling for socio-demographic and discrimination-related factors.

### 4.3.3 Hypothesis 3

Racism-specific coping strategies will have a significant association with the level of CES-D score above and beyond other predictors, including discrimination-related factors, psychosocial resources and general coping styles.

### 4.3.4 Hypothesis 4

Discrimination-related factors will be differentially associated with level of CES-D scores among U.S.-born Asian Americans, compared to foreign-born Asian Americans, after controlling for socio-demographic factors.

## 4.4 Analysis Plan

All of the data cleaning and analyses were conducted using Stata 10.1 (StataCorp, 2007), a commercially available statistical software, comparable to SPSS and SAS. Additionally, built-in statistical analyses options within the Qualtrics Research Suite were utilized. Data cleaning was done prior to the analyses to check and correct for errors,

outliers, and missing data. Specifically, if a case contained less than half of the data, or was void of critical demographic information, such as gender, it was removed from the analyses. The data did not have extreme outliers. However, potential predictor variables were checked for normality and considered for transformations that would correct skewedness.

The first set of analyses conducted illustrates basic socio-demographic characteristics of the survey sample. The second set of analyses conducted various correlations between key measures and examined inter-item reliability within each measure. A series of hierarchical ordinary least square (OLS) regression models tested the study hypotheses. Predictors were mean-centered when testing interaction effects to avoid multi-collinearity issues.

# CHAPTER 5

# RESULTS

## 5.1 Socio-demographic Characteristics

Table 1 shows a list of socio-demographic characteristics in the total sample, and by nativity status (U.S.-born vs. immigrants).

**Table 1. Descriptive characteristics of study samples.**

| | Total (N=384) | | Nativity Status: Immigrant Group (n=168) | | Nativity Status: US-born Group (n=216) | |
|---|---|---|---|---|---|---|
| | Mean/% | SD | Mean/% | SD | Mean/% | SD |
| Sex | | | | | | |
| Female | 67.7% | | 70.2% | | 65.7% | |
| Age, in years | 30.1 | 11.98 | 34.9 | 13.10 | 26.4[‡] | 9.5 |
| Education | 4.9 | 1.51 | 5.16 | 1.54 | 4.64[‡] | 1.4 |
| High School or GED (2) | 4.4% | | 1.8% | | 6.5% | |
| Some college (3) | 23.2% | | 21.4% | | 24.5% | |
| AA degree (4) | 3.4% | | 3.6% | | 3.2% | |
| Bachelor's degree (5) | 34.4% | | 29.2% | | 38.4% | |
| Master's degree (6) | 25.0% | | 29.2% | | 21.8% | |
| Professional degree (7) | 3.9% | | 6.0% | | 2.3% | |
| Ph.D. degree (8) | 5.7% | | 8.9% | | 3.2% | |
| Employment status | | | | | | |
| Employed | 54.2% | | 66.1% | | 44.9% | |
| FT/PT student | 36.72% | | 23.8% | | 46.8% | |
| Homemaker | 2.6% | | 4.2% | | 1.4% | |
| Unemployed | 6.5% | | 5.9% | | 6.9% | |
| Marital status | | | | | | |
| Single | 68.2% | | 50.6% | | 81.9%[‡] | |
| Married | 29.7% | | 46.4% | | 16.7% | |
| Divorced | 2.1% | | 3.0% | | 1.4% | |
| Annual household income[†] | 6.9 | 4.81 | 7.60 | 4.76 | 6.3[‡] | 4.8 |
| No. of people in household | 2.8 | 1.89 | 2.82 | 2.15 | 2.7 | 1.7 |
| Religious affiliation | | | | | | |
| Protestantism | 26.0% | | 23.8% | | 27.8% | |
| Catholicism | 9.6% | | 10.1% | | 9.3% | |
| Buddhism | 11.2% | | 13.7% | | 9.3% | |
| Hinduism | 0.8% | | 1.2% | | 0.5% | |
| Islam | 0.3% | | 0.6% | | - | |
| Judaism | 0.3% | | 0.6% | | - | |
| Agnost or Atheist | 14.8% | | 11.3% | | 17.6% | |
| No religion | 30.7% | | 29.8% | | 31.5% | |
| Other | 6.3% | | 8.9% | | 4.2% | |
| Religious participation | 1.3 | 1.63 | 1.26 | 1.65 | 1.4 | 1.6 |
| Nativity status | | | | | | |
| U.S.-born | 56.3% | | - | | - | |
| Age at immigration | - | | 12.7 | 10.84 | - | |
| English language proficiency | - | | 3.5 | .06 | - | |
| Asian language proficiency | - | | - | | 1.98 | .06 |

Note: [†]Annual household income categories in $10K increment, beginning at <$20K (1) and ending at >$150K (15). [‡]Bonferroni corrected p-value=.006

### 5.1.1 Total analytic sample

An average respondent in the survey was a 30-year-old U.S.-born single employed female with at least bachelor's degree. Average annual household income was in the $60,000-$70,000 range, with 2.8 (M=2.8, SD=1.89) people living in a household. A little more than one third (35.6%) of the respondents claimed affiliation with either Protestant or Catholic churches. 11.2 percent of respondents reported Buddhism; 0.8 percent Hindu; 0.3 percent Islam as their choices of religious affiliation. Close to half (45.5%) of respondents self-identified as either Agnostic, atheist, or without religion. The average frequency of participation in religious activities was less than once a month among the respondents.

### 5.1.2 By nativity status (U.S.-born vs. immigrants)

Among the immigrant subgroup (n=168), an average respondent was a 35-year-old single employed female with at least bachelor's degree. Individuals in the immigrant subgroup were on average 12.7 years old (M=12.7, SD=11.14) when they arrived in the United States. Average annual household income was in the $70,000-$80,000 range, with 2.8 people living in a household. A little more than one third (33.9%) of immigrant subgroup reported affiliation with either Protestant or Catholic churches. 13.7 percent reported affiliation with Buddhism; 1.2 percent Hindu; and 0.6 percent Islam. 41.1 percent of the immigrant subgroup self-identified as either agnostic, atheist, or without religion. The average frequency of religious participation among the immigrant subgroup was less than once a month. In addition, those who identified English as their second

language (n=118) reported *good* to *excellent* English language proficiency (M=3.5, SD=.06).

Among the U.S.-born subgroup (n=216), an average respondent was a 26-year-old single female, full-time or part-time student, with at least bachelor's degree. Average annual household income was $60,000-$70,000 range with about three people living in a household. 37.1 percent of the U.S.-born subgroup reported affiliation with either Protestant or Catholic churches. 9.3 percent reported Buddhism as their religion. Close to half (49.1%) self-identified as either agnostic, atheist, or without religion. In addition, those who reported speaking an Asian language (n=187, e.g., Chinese, Korean, Tagalog, etc.) reported poor to fair Asian language proficiency (M=1.98, SD=.06).

## 5.2 Key Measures in the Study

Table 2 shows a list of means and standard deviation of the study's key predictor variables for total sample, for immigrant and for U.S.-born subgroups. T-tests were conducted in order to examine the differences of key measure scores between the two subgroups.

## Table 2. Means and Standard Deviations of Key study variables, by nativity status.

| | Total (N=384) | | Immigrants (n=168) | | U.S.-born (n=216) | | | |
|---|---|---|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | Mean | SD | t-statistics | p-value |
| *Outcome Measure:* | | | | | | | | |
| Depressive symptoms (CES-D) | | | | | | | | |
| [Rarely or none of the time=0, most or all of the time=3] | .44 | .48 | .40 | .47 | .48 | .49 | -1.52 | .94 |
| *Discrimination-related Measures:* | | | | | | | | |
| Experience (RDE) | | | | | | | | |
| [Never=0, almost all the time=5] | .55 | .44 | .57 | .45 | .54 | .44 | .64 | .52 |
| Stress appraisal (RDA) | | | | | | | | |
| [Not at all stressful=0, Extremely stressful=5] | .83 | .89 | .85 | .95 | .81 | .84 | .45 | .66 |
| Perpetual foreigner stress (PFS) | | | | | | | | |
| [Never happened=0, extremely upset=4] | 1.16 | .77 | 1.13 | .66 | 1.18 | .84 | -.65 | .51 |
| *Psychosocial Resource Measures:* | | | | | | | | |
| Emotional support: Colleagues | | | | | | | | |
| [None at all=0, A lot=3] | 1.98 | .68 | 1.94 | .68 | 2.02 | .68 | -1.15 | .25 |
| Emotional support: Friends | | | | | | | | |
| [None at all=0, A lot=3] | 2.62 | .49 | 2.55 | .54 | 2.67 | .44 | **-2.49** | **.007‡** |
| Emotional support: Family | | | | | | | | |
| [None at all=0, A lot=3] | 2.55 | .52 | 2.56 | .52 | 2.54 | .52 | .49 | .63 |
| Proportion of Asians in daily life | | | | | | | | |
| [<10%=1, >50%=6] | 2.67 | 1.15 | 2.62 | 1.17 | 2.71 | 1.13 | -.76 | .45 |
| Critical ethnic awareness: Active thinking | | | | | | | | |
| [Strongly disagree=0, Neither=2, Strongly agree=4] | 3.07 | .03 | 3.03 | .72 | 3.11 | .75 | -.97 | .34 |
| Critical ethnic awareness: Think about self in social context | | | | | | | | |
| [Strongly disagree=0, Neither=2, Strongly agree=4] | 2.98 | .72 | 2.93 | .67 | 3.02 | .76 | -1.19 | .23 |
| *Coping Measures:* | | | | | | | | |
| General coping style [Not at all=0; Very much=4] | | | | | | | | |
| *Problem solving* | 2.57 | .83 | 2.54 | .87 | 2.60 | .80 | -.65 | .52 |
| *Cognitive restructuring* | 2.21 | .86 | 2.26 | .88 | 2.17 | .85 | .98 | .33 |
| *Express emotions* | 2.03 | .88 | 2.17 | .90 | 1.91 | .85 | **2.87** | **.002‡** |
| *Seeking Social contact* | 2.78 | .93 | 2.68 | .89 | 2.85 | .96 | -1.78 | .08 |
| *Problem avoidance* | 1.24 | .95 | 1.32 | .95 | 1.18 | .95 | 1.41 | .16 |
| *Wishful thinking* | 1.89 | .90 | 1.93 | .87 | 1.86 | .93 | .67 | .50 |
| *Self-criticism* | 1.89 | 1.03 | 1.83 | 1.03 | 1.94 | 1.03 | -.96 | .34 |
| *Social withdrawal* | 1.87 | .92 | 1.84 | .89 | 1.89 | .94 | -.54 | .59 |
| Racial coping strategies [Not at all=0; Very much=4] | | | | | | | | |
| *Problem solving* | 1.50 | 1.16 | 1.62 | 1.16 | 1.41 | 1.16 | 1.69 | .09 |
| *Cognitive restructuring* | 1.53 | 1.09 | 1.73 | 1.13 | 1.37 | 1.03 | **3.30** | **.000‡** |
| *Express emotions* | 1.63 | 1.08 | 1.74 | 1.08 | 1.54 | 1.07 | 1.78 | .08 |
| *Seeking Social contact* | 1.82 | 1.31 | 1.93 | 1.31 | 1.74 | 1.31 | 1.39 | .17 |
| *Problem avoidance* | 1.30 | 1.08 | 1.36 | 1.06 | 1.25 | 1.09 | 1.00 | .32 |
| *Wishful thinking* | 1.30 | 1.05 | 1.43 | 1.05 | 1.19 | 1.04 | 2.25 | **.02*** |
| *Self-criticism* | .61 | .93 | .72 | .96 | .53 | .90 | 2.01 | **.04*** |
| *Social withdrawal* | 1.10 | 1.06 | 1.20 | 1.04 | 1.02 | 1.07 | 1.71 | .09 |

Note: SD=standard deviation. ‡Bonferroni-corrected p-values applied when testing for statistical significance. *p<.05, **p<.01, ***p<.001

### 5.2.1 Discrimination-related measures

Overall, more than 95 percent of the respondents reported that they have experienced racial discrimination and/or felt they were perceived as perpetual foreigners at least once in the previous 12 months. Specifically, respondents reported experiencing racial discrimination (RDE) less than once in a while (M=.55, SD=.44) in the previous 12 months. When respondents reported experiencing racial discrimination in the previous 12 months, they indicated that they felt a little stressful (M=.83, SD=.89). In addition, respondents were slightly bothered (M=1.16, SD=.77) when perceived as perpetual foreigners (PFS) in the previous 12 months. The results of the t-tests revealed that there were no significant differences between immigrant and U.S.-born subgroups among three discrimination-related measure scores (RDE, t=.64, p=.52; RDA, t=.45, p=.66; & PFS, t=.65, p=.51).

### 5.2.2 Psychosocial resource measures

The overall sample reported that respondents received between *some* and *a lot* of emotional support from their friends (ESFRN; M=2.62, SD=.49). When ESFRN scores between immigrant and U.S.-born subgroups were compared using t-test, the results indicated that the individuals in the immigrant subgroup (M=2.55, SD=.54) reported significantly lower emotional support from their friends (t=-2.49, p<.05) than those in the U.S.-born subgroup (M=2.67, SD=.44). The overall sample also reported that respondents were receiving between *a little* and *some* level of emotional support from colleagues (ESCOL; M=1.98, SD=.68), while receiving between *some* and *a lot* of

emotional support from immediate family members (ESFAM; M=2.55, SD=.52). However, the results of the t-tests indicated that neither ESCOL scores (t=-1.15, p=.25) nor ESFAM scores (t=.49, p=.63) between immigrant and U.S.-born subgroups were significantly different from each other.

The overall sample reported that the proportion of Asians and Asian Americans respondents interact with on a daily basis (AAPTOT) is between 11 percent and 30 percent on average (M=2.67, SD=1.15) across different social contexts (friends, co-workers, neighborhood, workplace, professional organizations, and school). The result of t-test on AAPTOT scores between immigrant and U.S.-born subgroups indicated that there was no significant difference (t=-.76, p=.45) between the two subgroups.

The overall mean score of *Active thinking* subscale (AT) from the critical ethnic-awareness measure ranged between *agree* and *strongly agree* (M=3.07, SD=.03). The overall mean score of *Thinking about self in social context* subscale (TSSC) from the critical ethnic awareness measure ranged between *neither agree or disagree* and *agree* (M=2.98, SD=.72). Neither AT (t=-97, p=.34) nor TSSC (t=-1.19, p=.23) scores between immigrant and U.S.-born subgroups were not significantly different.

### 5.2.3 Coping measures: General coping styles

Among eight general coping measures, *seeking social support* subscale was used the most often, ranged between *somewhat* and *much* (M=2.78, SD=.93) and *problem avoidance* the least often, ranged between *a little* and *some* (M=1.24, SD=.95) in overall sample. This pattern was similar across immigrant and U.S.-born subgroups. The results of the t-tests on eight primary general coping measures revealed that only *express*

*emotions* subscale scores were significantly different ($t=2.87$, $p<.01$) between immigrant (M=2.17, SD=.90) and U.S.-born (M=1.91, SD=.85) subgroups.

### 5.2.4 Coping measures: Racial coping strategies

Among the eight racial coping strategies, *seeking social support* subscale is used the most often (M=1.82, SD=1.31) and *self-criticism* the least often (M=.61, SD=.93). This pattern is similar across the immigrant and U.S.-born subgroups. The results of the t-tests revealed that there are three racial coping strategies that significantly differed between the immigrant and U.S.-born subgroups: *cognitive restructuring*, *wishful thinking*, and *self-criticism*. The cognitive restructuring score was used significantly more often ($t=3.30$, $p<.000$) among individuals in the immigrant subgroup (M=1.73, SD=1.13) than those in the U.S.-born subgroup (M=1.37, SD=1.03). Wishful thinking was used significantly more ($t=2.25$, $p<.05$) among individuals in the immigrant subgroup (M=1.43, SD=1.05) compared with those in the U.S.-born subgroup (M=1.19, SD=1.04). Self-criticism was used significantly more ($t=2.01$, $p<.05$) among individuals in the immigrant subgroup (M=.72, SD=.96) than the individuals in the U.S.-born subgroup (M=.53, SD=.90).

## 5.3 Results from Hierarchical Regression Analyses[7]

### 5.3.1 Total sample (N=384)

Table 3 shows the results of hierarchical regression of overall sample with the level of depressive symptoms (as measured by CES-D) as an outcome. The first model represents a base model with seven socio-demographic variables: sex, age, education, job status, annual household income, marital status, and nativity status. The socio-demographic variables, except nativity status, are primarily used as control variables. The second model added discrimination-related variables to the first model: racial discrimination experience, racial discrimination appraisal, and perpetual foreigner stress. Among discrimination-related variables, the perpetual foreigner stress score significantly predicted ($\beta=.169$, $p<.01$) the increase in the level of depressive symptoms. Neither racial discrimination experience ($\beta =.138$, $p=.063$) nor racial discrimination appraisal ($\beta =.119$, $p=.101$) significantly predicted the level of depressive symptoms in the overall analytic sample.

The third model added psychosocial resources to the second model: emotional support from colleagues, friends, and family, the proportion of Asians in the daily life, and active thinking and thinking of self in social context as critical ethnic awareness. The results revealed that *thinking about self in social context* subscale from Critical Ethnic Awareness (CEA) measure ($\beta =-.184$, $p<.01$) was associated with the depression score. The active thinking subscale from CEA was not a significant predictor ($\beta =.064$, $p=.250$) of depressive symptoms. Among three emotional support factors – colleagues, friends,

[7] The results of all the hierarchical regression analyses were reported with standardized beta (β) coefficient with standard errors in parenthesis. For each set of regression analyses, changes in $R^2$ were tested using t-test.

and family – emotional support from friends ($\beta$ =-.106, $p<.05$) and family ($\beta$ =-.211, $p<.001$) predicted significant decreases in the level of depressive symptoms. Emotional support from colleagues ($\beta$ =-.045, $p=.367$) was not a significant predictor of depressive symptom level. The results also indicated that perpetual foreigner stress ($\beta$ =.142, $p<.05$) remained a significant factor in predicting depressive symptoms. Racial discrimination appraisal ($\beta$ =.154, $p<.05$) became a significant factor in increasing depressive symptoms after the psychosocial resources factors were added to the model.

In the fourth model, eight general coping styles[8] were added to the third model. The results revealed that racial discrimination experience ($\beta$ =.172, $p<.05$) remained a significant predictor of depressive symptom level, while the significant effect of perpetual foreigner stress was removed ($\beta$ =.088, $p=.109$) once the general coping styles factors were added to the model. Emotional support from family remained a significant predictor ($\beta$ =-.163, $p<.001$), while the significant effect of emotional support from friends was removed ($\beta$ =.086, $p=.088$) once the general coping styles factors were added to the model. The *thinking about self in social context* subscale from the Ethnic Awareness measure remained a significant factor ($\beta$ =-.150, $p<.05$) in decreasing depressive symptoms. Among eight general coping styles, the results revealed that the three factors – cognitive restructuring, self-criticism, and social withdrawal – were significant predictors of depressive symptoms. Specifically, cognitive restructuring as a general coping style predicted a significant decrease ($\beta$ =.101, $p<.05$) in the level of depressive symptoms. Both self-criticism ($\beta$ =.117, $p<.01$) and social withdrawal ($\beta$ =.140, $p<.01$) predicted a significant decrease in the level of depressive symptoms.

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[8] Eight general coping styles are: problem-solving, cognitive restructuring, express emotion, seeking social contact, problem avoidance, wishful thinking, self-criticism, and social withdrawal.

Finally, the eight racial coping strategies[9] were added to the model. The results revealed that, among eight racial coping strategies, self-criticism as a racial coping strategy predicted a significant increase ($\beta$ =.115, $p<.05$) in depressive symptoms. The results also indicated that emotional support from family ($\beta$ =-.151, $p<.01$), *thinking about self in social context* subscale from CEA ($\beta$ =-.133, $p<.05$), and cognitive restructuring ($\beta$ =-.122, $p<.05$) and social withdrawal ($\beta$ =.116, $p<.05$) as general coping styles continue to remain significant predictors of depressive symptom level. In addition, Asian percentage in daily life became a significant predictor ($\beta$ =.102, $p<.05$) of depressive symptom level.

In addition, the amount of variance explained by each model was examined using t-tests on the magnitude of changes in $R^2$. The $R^2$ for model 1 through 5 were .04, .17, .28, .33, and .37, respectively. Sequential addition of set of variables significantly increased the variance explained after each step (except between model 4 and 5) and that the final model (model 5) explained the most variance ($R^2$=.37).

[9] The eight racial coping strategies are identical to the 8 general coping styles, except that respondents were asked how often they tend to use racial coping strategies in the racial discrimination-specific situations.

## Table 3. Associations among discrimination, coping, and depressive symptoms, total sample (N=384).

| Table: Hierarchical Regression – Total sample | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *β* | SE | *β* | SE | *β* | SE | *β* | SE | *β* | SE |
| *Model 1: Sociodemographics* | | | | | | | | | | |
| Sex (male=1) | 0.033 | (0.05) | 0.062 | (0.05) | 0.027 | (0.05) | 0.030 | (0.05) | 0.008 | (0.05) |
| Age | **-0.156*** | (0.00) | **-0.150*** | (0.00) | **-0.151*** | (0.00) | -0.091 | (0.00) | -0.084 | (0.00) |
| Education | 0.075 | (0.02) | 0.029 | (0.02) | 0.048 | (0.02) | 0.064 | (0.02) | 0.067 | (0.02) |
| Job status (employed=1) | -0.089 | (0.09) | **-0.109*** | (0.08) | -0.065 | (0.08) | -0.031 | (0.08) | -0.030 | (0.08) |
| Annual Income | **-0.111*** | (0.01) | -0.068 | (0.00) | -0.058 | (0.00) | -0.026 | (0.00) | -0.041 | (0.00) |
| Marital status (married=1) | 0.038 | (0.03) | 0.038 | (0.02) | 0.055 | (0.02) | 0.039 | (0.02) | 0.025 | (0.02) |
| Nativity (US-born=1) | 0.034 | (0.05) | 0.035 | (0.05) | 0.062 | (0.05) | 0.080 | (0.05) | 0.087 | (0.05) |
| *Model 2: Discrimination-related variables* | | | | | | | | | | |
| Experience | | | 0.138 | (0.08) | **0.154*** | (0.08) | **0.172*** | (0.08) | 0.138 | (0.08) |
| Stress Appraisal | | | 0.119 | (0.04) | 0.113 | (0.04) | 0.096 | (0.04) | 0.112 | (0.04) |
| Perpetual foreigner | | | **0.169**** | (0.04) | **0.142*** | (0.04) | 0.088 | (0.03) | 0.083 | (0.03) |
| *Model 3: Psychosocial resources* | | | | | | | | | | |
| Emotional support: Colleagues | | | | | -0.045 | (0.04) | -0.032 | (0.03) | -0.038 | (0.03) |
| Emotional support: Friends | | | | | **-0.106*** | (0.05) | -0.086 | (0.05) | -0.080 | (0.05) |
| Emotional support: Family | | | | | **-0.211***** | (0.04) | **-0.163***** | (0.04) | **-0.151**** | (0.04) |
| Asian % in daily life | | | | | 0.080 | (0.02) | 0.105* | (0.02) | **0.102*** | (0.02) |
| Ethnic awareness: Active thinking | | | | | 0.064 | (0.04) | 0.051 | (0.04) | 0.042 | (0.04) |
| Ethnic awareness: Think about self in social context | | | | | **-0.184**** | (0.04) | **-0.150*** | (0.04) | **-0.133*** | (0.04) |
| *Model 4: General coping* | | | | | | | | | | |
| Problem Solving | | | | | | | -0.014 | (0.03) | -0.015 | (0.03) |
| Cognitive Restructuring | | | | | | | **-0.101*** | (0.03) | **-0.112*** | (0.03) |
| Express Emotion | | | | | | | -0.002 | (0.03) | 0.012 | (0.03) |
| Seeking Social Contact | | | | | | | -0.038 | (0.03) | 0.007 | (0.03) |
| Problem Avoidance | | | | | | | 0.104 | (0.03) | 0.082 | (0.03) |
| Wishful Thinking | | | | | | | 0.058 | (0.03) | 0.053 | (0.03) |
| Self-criticism | | | | | | | **0.117*** | (0.02) | 0.086 | (0.02) |
| Social Withdrawal | | | | | | | **0.140**** | (0.03) | **0.116*** | (0.03) |
| *Model 5: Racial coping* | | | | | | | | | | |
| Problem Solving | | | | | | | | | 0.035 | (0.03) |
| Cognitive Restructuring | | | | | | | | | 0.002 | (0.03) |
| Express Emotion | | | | | | | | | 0.002 | (0.03) |
| Seeking Social Contact | | | | | | | | | -0.123 | (0.02) |
| Problem Avoidance | | | | | | | | | -0.003 | (0.03) |
| Wishful Thinking | | | | | | | | | 0.019 | (0.03) |
| Self-criticism | | | | | | | | | **0.115*** | (0.03) |
| Social Withdrawal | | | | | | | | | 0.050 | (0.03) |
| $R^2$ | 0.041 | | 0.17 | | 0.278 | | 0.353 | | 0.371 | |
| Changes in $R^2$ | | | .13*** | | .11*** | | .08*** | | .02 | |

Note: $\beta$ =standardized beta coefficients; SE=standard errors (in parentheses). $*p < 0.05$, $**p < 0.01$, $***p < 0.001$

### 5.3.2 By nativity status

The stratified analysis by nativity status was conducted to examine the moderating impact of nativity status on depressive symptoms and what factors might act as risk or protective factors in depressive symptoms. The immigrant subgroup was chosen as the reference group. The addition of five sets of variables in the hierarchical regression analyses followed the same sequence as overall analyses, except that the nativity variable was removed from the socio-demographic block in this set of analyses.

#### *5.3.2.1 Immigrant subgroup (n=168)*

Table 4 shows the results of hierarchical regression among immigrant subgroup. The first model had socio-demographic variables (sex, age, education, job status, annual household income, and marital status) regressed on the level of depressive symptoms (CES-D). The results showed that being employed predicted significant decrease ($\beta = .166$, $p<.05$) in the level of depressive symptoms.

The second model added discrimination-related variables (racial discrimination experience, racial discrimination appraisal, and perpetual foreigner stress) to the first model. The results revealed that racial discrimination experience predicted a significant increase ($\beta = .269$, $p<.05$) in the depressive symptoms. Racial discrimination appraisal ($\beta = .098$, $p=.379$) and perpetual foreigner stress ($\beta = .148$, $p=.102$) did not significantly predicted depressive symptoms. The results also revealed that being employed remained a significant factor ($\beta = -.162$, $p<.05$) in decreasing depressive symptoms.

The third model added psychosocial resources variables: emotional support from colleagues, friends, and family; the proportion of Asian Americans in the daily contact; active thinking and *thinking about self in social context* subscales of ethnic awareness measure. The results revealed that emotional support from friends ($\beta$ =-.153, $p<.05$) and family ($\beta$ =-.252, $p<.001$) predicted significant decrease in depressive symptom level. *Thinking about self in social context* subscale of ethnic awareness measure also predicted a significant decrease ($\beta$ =-.242, $p<.01$) in depressive symptoms. The results also indicated that racial discrimination experience remained a significant factor ($\beta$ =.283, $p<.01$) in increasing depressive symptoms. The significant effect of being employed on the depressive symptom level was no longer significant ($\beta$ =.069, $p=.342$) after adding psychosocial resources variables.

The fourth model added to the third model general coping styles: problem-solving, cognitive restructuring, express emotion, seeking social contact, problem avoidance, wishful thinking, self-criticism, and social withdrawal. Among eight general coping styles, expressing emotion as a general coping style predicted a significant decrease ($\beta$ =-.181, $p<.05$) in depressive symptom level. Problem avoidance as a general coping style reached a near significant level ($\beta$ =.151, $p=.051$) but did not reach the .05 threshold. The results indicated that emotional support from friends ($\beta$ =-.165, $p<.05$), family ($\beta$ =-.179, $p<.05$) and *thinking about self in social context* subscale of the ethnic awareness measure ($\beta$ =-.181, $p<.05$) remained a significant factor in decreasing depressive symptom level among immigrant individuals in this subgroup.

The final model added racial coping strategies to the fourth model. The results revealed that none of the eight racial coping strategies significantly predicted the level of

depressive symptoms. The results indicated that emotional support from friends (β =-.168, $p<.05$) and family (β =-.161, $p<.05$) remained a significant factor in decreasing depressive symptoms. The results also indicated that the significant effect of expressing emotion as a general coping style on the depressive symptoms was no longer significant (β =-.161, p=.086) after adding racial coping strategy variables.

In addition, the amount of variance explained by each model was examined using t-tests on the magnitude of changes in $R^2$ among immigrant subgroup. The $R^2$ for model 1 through 5 were .06, .25, .39, .47, and .49, respectively. Sequential addition of sets of variables significantly increased the variance explained after each step (except between model 4 and 5) and that the final model (model 5) explained the most variance ($R^2$=.49).

## Table 4. Associations between discrimination, coping, and depressive symptoms, immigrant subgroup (n=168)

| | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | $\beta$ | SE | $\beta$ | SE | $\beta$ | SE | $\beta$ | SE | $\beta$ | SE |
| *Model 1: Sociodemographics* | | | | | | | | | | |
| Sex (male=1) | 0.010 | (0.08) | 0.058 | (0.07) | 0.027 | (0.07) | 0.014 | (0.07) | 0.003 | (0.08) |
| Age | -0.040 | (0.00) | -0.081 | (0.00) | -0.148 | (0.00) | -0.086 | (0.00) | -0.067 | (0.00) |
| Education | 0.040 | (0.03) | -0.047 | (0.02) | -0.022 | (0.02) | 0.025 | (0.02) | 0.034 | (0.02) |
| Job status (employed=1) | **-0.166*** | (0.13) | **-0.162*** | (0.12) | -0.069 | (0.11) | -0.094 | (0.11) | -0.081 | (0.12) |
| Annual Income | -0.152 | (0.01) | -0.068 | (0.01) | -0.057 | (0.01) | -0.074 | (0.01) | -0.070 | (0.01) |
| Marital status (married=1) | -0.120 | (0.03) | -0.061 | (0.03) | 0.010 | (0.03) | -0.038 | (0.03) | -0.051 | (0.03) |
| *Model 2: Discrimination-related variables* | | | | | | | | | | |
| Experience | | | **0.269*** | (0.11) | **0.283**** | (0.11) | **0.233*** | (0.11) | 0.211 | (0.12) |
| Stress Appraisal | | | 0.098 | (0.06) | 0.113 | (0.05) | 0.117 | (0.05) | 0.091 | (0.05) |
| Perpetual foreigner | | | 0.148 | (0.06) | 0.116 | (0.06) | 0.103 | (0.06) | 0.119 | (0.06) |
| *Model 3: Psychosocial resources* | | | | | | | | | | |
| Emotional support: Colleagues | | | | | 0.058 | (0.05) | 0.039 | (0.05) | 0.051 | (0.05) |
| Emotional support: Friends | | | | | **-0.153*** | (0.07) | **-0.165*** | (0.07) | **-0.168*** | (0.07) |
| Emotional support: Family | | | | | **-0.252***** | (0.06) | **-0.179*** | (0.07) | **-0.161*** | (0.07) |
| Asian % in daily life | | | | | 0.068 | (0.03) | 0.063 | (0.03) | 0.068 | (0.03) |
| Ethnic awareness: Active thinking | | | | | 0.056 | (0.05) | -0.004 | (0.06) | -0.017 | (0.06) |
| Ethnic awareness: Think about self in social context | | | | | **-0.242**** | (0.06) | **-0.181*** | (0.06) | -0.159 | (0.06) |
| *Model 4: General coping* | | | | | | | | | | |
| Problem Solving | | | | | | | 0.153 | (0.04) | 0.137 | (0.05) |
| Cognitive Restructuring | | | | | | | -0.102 | (0.04) | -0.090 | (0.04) |
| Express Emotion | | | | | | | **-0.181*** | (0.04) | -0.161 | (0.05) |
| Seeking Social Contact | | | | | | | 0.045 | (0.04) | 0.073 | (0.05) |
| Problem Avoidance | | | | | | | 0.151 | (0.04) | 0.155 | (0.04) |
| Wishful Thinking | | | | | | | 0.057 | (0.04) | 0.047 | (0.04) |
| Self-criticism | | | | | | | 0.108 | (0.03) | 0.097 | (0.04) |
| Social Withdrawal | | | | | | | 0.107 | (0.04) | 0.055 | (0.04) |
| *Model 5: Racial coping* | | | | | | | | | | |
| Problem Solving | | | | | | | | | 0.033 | (0.04) |
| Cognitive Restructuring | | | | | | | | | -0.099 | (0.04) |
| Express Emotion | | | | | | | | | -0.035 | (0.05) |
| Seeking Social Contact | | | | | | | | | -0.048 | (0.04) |
| Problem Avoidance | | | | | | | | | 0.053 | (0.04) |
| Wishful Thinking | | | | | | | | | -0.015 | (0.04) |
| Self-criticism | | | | | | | | | 0.005 | (0.04) |
| Social Withdrawal | | | | | | | | | 0.183 | (0.04) |
| $R^2$ | 0.064 | | 0.248 | | 0.389 | | 0.465 | | 0.489 | |
| Changes in $R^2$ | | | .18*** | | .14*** | | .08* | | .02 | |

Note: $\beta$ =standardized beta coefficients; SE=standard errors (in parentheses). *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

#### *5.3.2.2 U.S.-born subgroup (n=216)*

Table 5 shows the results of hierarchical regression analysis among U.S.-born subgroup. In the first model, socio-demographic variables were regressed on depressive symptoms. The results revealed that age was a significant predictor ($\beta$ =-.229, $p<.05$) in decreasing depressive symptoms. The second model added discrimination-related variables to the first model. The results revealed that perpetual foreigner stress predicted a significant increase ($\beta$ =-.198, $p<.05$) in depressive symptoms. The age variable remained a significant factor ($\beta$ =-.212, $p<.05$) in decreasing depressive symptoms even after adding the discrimination-related variables to the model.

The third model added psychosocial resources variables to the second model. The results revealed that emotional support from family predicted a significant decrease ($\beta$ =-.182, $p<.01$) in depressive symptoms. The results also showed that the significant effects of age ($\beta$ =-.152, p=.071) and perpetual foreigner stress ($\beta$ =.152, p=.060) were no longer significant when psychosocial resources variables were added to the second model.

The fourth model added general coping styles factors to the third model. The results revealed that social withdrawal as a general coping style contributed a significant increase ($\beta$ =.171, $p<.05$) in depressive symptoms. The results also showed that the emotional support from family remained as a significant protective factor ($\beta$ =-.165, $p<.05$) of depressive symptoms. In addition, the proportion of Asians in daily life was associated with a significant increase ($\beta$ =.149, $p<.05$) in depressive symptoms.

The final model added racial coping strategy variables to the fourth model. The results revealed that self-criticism as a racial coping strategy was marginally significant

factor ($\beta$ =.161, p=.052) in increasing depressive symptoms, but did not reach statistical significance. None of the racial coping strategies significantly predicted depressive symptoms. However, emotional support from family ($\beta$ =-.170, $p<.05$) remained a significant factor in decreasing depressive symptoms. The proportion of Asians in daily life ($\beta$ =.148, $p<.05$) and social withdrawal as a general coping ($\beta$ =.179, $p<.05$) remained significant factors in increasing depressive symptoms after adding racial coping strategy variables.

In addition, the amount of variance explained by each model was examined using t-tests on the magnitude of changes in $R^2$ among immigrant subgroup. The $R^2$ for Models 1 through 5 were .05, .14, .23, .33, and .35, respectively. Sequential addition of sets of variables significantly increased the variance explained after each step (except between model 4 and 5) and that the final model (model 5) explained the most variance ($R^2$=.35).

## Table 5. Associations between discrimination, coping, and depressive symptoms, U.S.-born subgroup (n=216)

| Table: Hierarchical Regression - U.S.-born group (n=216) | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | $\beta$ | SE | $\beta$ | SE | $\beta$ | SE | $\beta$ | SE | $\beta$ | SE |
| *Model 1: Sociodemographics* | | | | | | | | | | |
| Sex (male=1) | 0.062 | (0.07) | 0.079 | (0.07) | 0.037 | (0.07) | 0.038 | (0.07) | 0.022 | (0.07) |
| Age | **-0.229*** | (0.00) | **-0.212*** | (0.00) | -0.152 | (0.00) | -0.095 | (0.00) | -0.075 | (0.00) |
| Education | 0.113 | (0.03) | 0.093 | (0.02) | 0.096 | (0.02) | 0.100 | (0.02) | 0.095 | (0.02) |
| Job status (employed=1) | -0.032 | (0.12) | -0.061 | (0.12) | -0.069 | (0.11) | 0.002 | (0.11) | -0.007 | (0.12) |
| Annual Income | -0.087 | (0.01) | -0.071 | (0.01) | -0.049 | (0.01) | 0.019 | (0.01) | -0.001 | (0.01) |
| Marital status (married=1) | 0.158 | (0.04) | 0.126 | (0.04) | 0.103 | (0.04) | 0.091 | (0.03) | 0.080 | (0.04) |
| *Model 2: Discrimination-related variables* | | | | | | | | | | |
| Experience | | | 0.024 | (0.12) | 0.065 | (0.11) | 0.156 | (0.11) | 0.121 | (0.11) |
| Stress Appraisal | | | 0.132 | (0.06) | 0.114 | (0.06) | 0.057 | (0.05) | 0.081 | (0.06) |
| Perpetual foreigner | | | **0.198*** | (0.05) | 0.152 | (0.05) | 0.043 | (0.05) | 0.057 | (0.05) |
| *Model 3: Psychosocial resources* | | | | | | | | | | |
| Emotional support: Colleagues | | | | | -0.130 | (0.05) | -0.103 | (0.05) | -0.111 | (0.05) |
| Emotional support: Friends | | | | | -0.046 | (0.08) | -0.001 | (0.08) | 0.012 | (0.08) |
| Emotional support: Family | | | | | **-0.182**** | (0.06) | **-0.165*** | (0.06) | **-0.170*** | (0.06) |
| Asian % in daily life | | | | | 0.091 | (0.03) | **0.149*** | (0.03) | **0.148*** | (0.03) |
| Ethnic awareness: Active thinking | | | | | 0.072 | (0.05) | 0.095 | (0.06) | 0.077 | (0.06) |
| Ethnic awareness: Think about self in social context | | | | | -0.134 | (0.05) | -0.115 | (0.05) | -0.103 | (0.06) |
| *Model 4: General coping* | | | | | | | | | | |
| Problem Solving | | | | | | | -0.128 | (0.04) | -0.105 | (0.05) |
| Cognitive Restructuring | | | | | | | -0.112 | (0.04) | -0.105 | (0.05) |
| Express Emotion | | | | | | | 0.108 | (0.04) | 0.111 | (0.05) |
| Seeking Social Contact | | | | | | | -0.080 | (0.04) | -0.040 | (0.04) |
| Problem Avoidance | | | | | | | 0.083 | (0.04) | 0.053 | (0.04) |
| Wishful Thinking | | | | | | | 0.050 | (0.04) | 0.052 | (0.04) |
| Self-criticism | | | | | | | 0.127 | (0.03) | 0.084 | (0.04) |
| Social Withdrawal | | | | | | | **0.171*** | (0.04) | **0.179*** | (0.04) |
| *Model 5: Racial coping* | | | | | | | | | | |
| Problem Solving | | | | | | | | | -0.031 | (0.04) |
| Cognitive Restructuring | | | | | | | | | 0.035 | (0.04) |
| Express Emotion | | | | | | | | | 0.054 | (0.04) |
| Seeking Social Contact | | | | | | | | | -0.134 | (0.03) |
| Problem Avoidance | | | | | | | | | -0.040 | (0.04) |
| Wishful Thinking | | | | | | | | | 0.030 | (0.04) |
| Self-criticism | | | | | | | | | 0.161 | (0.04) |
| Social Withdrawal | | | | | | | | | -0.034 | (0.04) |
| $R^2$ | 0.048 | | 0.139 | | 0.226 | | 0.334 | | 0.355 | |
| Change in $R^2$ | | | .09*** | | .09** | | .11*** | | .02 | |

Note: $\beta$ =standardized beta coefficients; SE=standard errors (in parentheses). *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

# CHAPTER 6

# DISCUSSION

The purpose of this dissertation research was to examine the extent to which various psychosocial resources and coping strategies contribute as risk for or protect against depressive symptoms, provided that racial discrimination is considered one of the major underlying chronic stressors experienced among Asian Americans. The results of the hierarchical regression analyses supported previous findings from existing literature. In addition, the results also revealed important implication for future clinical prevention and intervention strategies for Asian Americans dealing with the impact of racial discrimination.

## 6.1 Discussion for Hypothesis 1

The study's first hypothesis expected that *discrimination-related factors (racial discrimination experience [RDE], discrimination appraisal [RDA], & perpetual foreigner stress [PFS])* predicted a significant association with the Center for Epidemiologic Study Depression (CES-D) score, after controlling for socio-demographic factors. Across all the survey respondents (Table 3, model 2), the results revealed that being perceived as "perpetual foreigner" (PFS) predicted a significant association with CES-D score among Asian Americans. Since the RDE and RDA did not predict a significant association with CES-D score in the overall sample, it is reasonable to suggest that PFS is an important factor in predicting higher depressive symptoms among this

sample of Asian Americans, beyond experiencing general racial discrimination. An earlier study by Wei, Heppner, Ku, & Liao (2010) reported a similar finding in that racial discrimination stress was revealed as a significant factor in predicting depressive symptoms beyond the general stress and discrimination among Asian American college students. The present study supports and extends the understanding of perception of racial discrimination by demonstrating that discrimination targeting more recent immigrant groups (e.g., PFS) is a unique stressor for Asian Americans in addition to general racial discrimination experience and its related stress.

The outcome from testing the first hypothesis suggests that discerning general RDE from Asian-specific discrimination, such as PFS, is critical in understanding how discrimination ultimately influences Asian Americans' mental health. The results of Hypothesis 1 support a long-standing theory that, just as asserting that general racial discrimination experience is a chronic stressor unique to African Americans (Clark, et al., 1999; Ong, Fuller-Rowell, & Burrow, 2009), being perceived as perpetual foreigners in your own country creates similar psychological distress to Asian Americans (Goto, Gee, & Takeuchi, 2002; Liang, et al., 2004).

Prior studies indicated that Asian Americans do indeed deal with additional discrimination-related stressors beyond general racial discrimination, such as language discrimination (Goto, et al., 2002; Lueck & Wilson, 2010; Yoo, Gee, & Takeuchi, 2009). In addition, acculturative stress, i.e., stresses associated with acculturating to mainstream U.S. culture for foreign-born immigrants, has been extensively studied in the past (Koneru, Weisman de Mamani, Flynn, & Betancourt, 2007; Suinn, 2010). Acculturative stresses have been linked to increased depressive symptoms (Hwang & Ting, 2008),

mood disorders (Mehta, 1998), negative health outcomes (Salant & Lauderdale, 2003), and substance use (W. Kim, et al., 2010; Lum, et al., 2009; Moloney, Hunt, & Evans, 2008).

### 6.2 Discussion for Hypothesis 2

The study's second hypothesis suggested that *psychosocial resources (emotional support, proportion of Asian Americans in daily encounters, & critical ethnic awareness)* are significantly associated with a decrease in depressive symptoms, controlling for sociodemographic and discrimination-related factors. Across all survey respondents (Table 5, model 3), three psychosocial resources predicted significant associations with CES-D score after taking basic demographics and discrimination-related variables into account: *emotional support from friends* and *family*, and *thinking about self in social context*.

Previous studies support the buffering properties of social support in general (House, Umberson, & Landis, 1988), but suggest differences in social support utilization based on cultural background and immigration status (H. K. Kim & McKenry, 1998; H. S. Kim, Sherman, & Taylor, 2008; Liu, 1986; Stewart et al., 2008). Social support helps individuals by providing emotional and physical outlets for those under the stressful situations (House, et al., 1988; H. S. Kim, et al., 2008). It is worth noting that emotional support from colleagues did not significantly buffer the effects of discrimination-related stressors on depressive symptoms. Perhaps Asian Americans specifically confide in smaller, more intimate circles of friendship and family support, as Markus and Kitayama (1991) have suggested with their Interdependent Relationship Tendency theory. Markus

and Kitayama suggested that because individuals from interdependent cultures tend to have a smaller circle of tightly-knit family members and friends, people outside of those interdependent boundaries may only minimally affect the functioning of people inside of the circle. In a multicultural society, such as U.S., it is possible that these individuals may be experiencing discrimination from people outside of their comfort zone, such as work or school, that further reinforces preservation of a small circle of familiar people.

In addition, this study examined *critical social awareness* (CSA) as an indicator measure for individuals' recognition and awareness of the roles that racial and ethnic identity play in mental health. The results revealed that *thinking about self in social context* (TSSC), one of the subscales of CSA, predicted significant association with CES-D score. TSSC included four items: 1) I think a lot about how society disadvantages people in my racial/ethnic group; 2) I don't think about different racial/ethnic group I belong to – I pretty much think of myself as an individual; 3) I think about the influence that society has on who I am and what I can accomplish; and 4) I don't think much about the privileges that my racial/ethnic group has in my society.

As a part of critical social awareness, the TSSC subscale reflects the essential and necessary skills for Asian Americans to acquire in order to learn to understand how their personal experiences are intertwined with their societal and political context (Nagda & Zúñiga, 2003). One of the possible reasons why TSSC acts as a protective factor against depressive symptoms in the presence of discrimination-related stressors may be that understanding personal-societal connection when it comes to recognizing the source of racial discrimination is critical in unburdening self-blame that may exacerbate depressive symptoms. Considering that blaming self for negative experiences has been associated

with higher depressive symptoms in previous studies (Gilbert, Durrant, & McEwan, 2006), it may be reasonable to attribute the buffering property of critical social awareness for its ability to deflect self-blame and recognize underlying structural inequality that condone and perpetuate discriminatory behaviors.

In addition, discrimination is experienced largely as a function of racial discrimination based on structural inequality within the society, which fosters blaming, isolating, and silencing the disenfranchised individuals (Freire, 1970). Research on empowerment suggests that one of the best ways to break out of the cycle of self-blaming for experiencing discrimination is to first understand this structural dynamic, learn to recognize the situations that results in discriminatory experience, and to engage in active community participation to address the issue of societal injustices, such as racial discrimination (Gutiérrez, DeLois, & GlenMaye, 1995; Holcomb-McCoy & Mitchell, 2007; Molix & Bettencourt, 2010).

When the data were analyzed by nativity status, *emotional support from friends* and *family*, and *thinking about self in social context* predicted significant association with CES-D score among immigrant subgroup (Table 6a, model 3), while *emotional support from family* was the only significant factor associated with CES-D score among the U.S.-born subgroup (Table 6b, model 3). Based on the results of the present study, Asian immigrants possess more robust psychosocial resources compared to the U.S.-born Asian Americans. Some previous studies have suggested a 'hardy immigrants' phenomenon (Dion, Dion, & Pak, 1992; Kuo & Tsai, 1986) to describe apparent physical and mental health advantages that immigrants seem to have over their U.S.-born counterparts. Essentially, the 'hardy immigrant' hypothesis assumes that those who chose to immigrate

to the U.S. are the ones with better health and more education than compared to non-immigrating counterparts in their home country. Additionally, other studies suggest that the immigrant social network is much more insular where they can find and rely on stronger social support, albeit in smaller number (H. K. Kim & McKenry, 1998; H. S. Kim, et al., 2008).

## 6.3 Discussion for Hypothesis 3

The study's third hypothesis suggested that *racism-specific coping strategies* will have significant association with CES-D score in addition to other important predictors, including discrimination-related factors, psychosocial resources and general coping styles. In overall sample, when used as a racism-specific coping strategy, *self-criticism* was significantly associated with CES-D score (Table 5, model 5). The significant association between self-criticism and depressive symptoms is consistent with previous studies (Kuo, 1995; Noh, et al., 1999; Noh & Kaspar, 2003; Wei, et al., 2010; Yoo & Lee, 2005). In general, these studies found that while effectiveness of approach-type coping strategies (e.g., cognitive restructuring, problem solving, etc.) may be inconclusive (Yoo & Lee, 2005), negative coping strategies (e.g., criticizing self, self-blame, etc.) clearly have adverse effects on mental health of Asian Americans in dealing with racial discrimination.

A number of research findings support the assertion that ethnic minority individuals experience racial discrimination virtually on a daily basis (Clark, et al., 1999; Goto, et al., 2002; Mak & Nesdale, 2001; Mallett & Swim, 2009; Swim, Cohen, & Hyers, 1998; Williams, et al., 1997; Yoo & Lee, 2005). Encountering racial discrimination

everyday can be psychologically taxing and an emotionally draining experience for ethnic minority people, because their minds are constantly scanning and appraising whether their interaction is deemed discriminatory in nature. Furthermore, some studies demonstrated that when coping processes takes over *after* the discriminatory situations have already happened, i.e., the *reactive* coping strategies, they effectively become mere damage control (Mallett & Swim, 2009; Swim & Thomas, 2006). Instead, some stress and coping researchers (Schwarzer, 2001; Mallett & Swim, 2005) suggested that *proactive coping* strategies, which Schwarzer (2001) defines as "an effort to build up general resources that facilitate promotion toward challenging goals and personal growth (p.406)," may have a potentially beneficial quality in dealing with chronic stressors such as racial discrimination (Mallett & Swim, 2005, 2009). In conjunction with more traditionally known reactive coping, proactive coping may reduce the severity of, and foster efficient ways of dealing with, future encounters with racial discrimination (Aspinwall & Taylor, 1997; Greenglass, 2002; Mallett & Swim, 2005, 2009; Schwarzer & Taubert, 2002; Sohl & Moyer, 2009).

The present study did not assess for a proactive dimension of coping strategies. However, some of the psychosocial resources, which were part of the second hypothesis, including social support structure and critical ethnic awareness, might be potential candidates as proactive coping components. Building up of general resources allows ethnic minorities to be ready for the awaiting difficult challenges and protect themselves from the unwanted negative fallout from psychological and emotional stresses experienced through racial discriminatory encounters. Future studies may consider

testing proactive coping as one of the possible coping strategies Asian Americans might employ for preventing negative psychological consequences of racial discrimination.

When the data were analyzed by nativity status (Table 6, model 5) and high vs. low RDE groups (Table 7, model 5), none of the racism-specific coping strategies were significantly associated with the CES-D score after taking basic demographics, discrimination-related factors, psychosocial resources, and general coping styles into consideration. While earlier studies looking at the effectiveness of racism-specific coping strategies controlled for general stress, they did not control for general coping styles (Joseph & Kuo, 2009; Kuo, 1995; Mossakowski, 2003; Noh, et al., 1999; Noh & Kaspar, 2003; Sanders Thompson, 2006; Wei, et al., 2010; Yoo & Lee, 2005). By including general (i.e., dispositional or personality trait) coping style in the analytic model, the present study's finding suggest that general coping styles may be more responsible for providing buffering effects against racial discrimination.

### 6.4 Discussion for Hypothesis 4

The study's fourth hypothesis expected that *discrimination-related factors (racial discrimination experience, racial discrimination appraisal, and perpetual foreigner stress)* will differentially influence level of depressive symptoms among U.S.-born Asian Americans, compared to foreign-born Asian Americans, after controlling for sociodemographic factors. When the data were analyzed by the nativity status, general racial discrimination experience (RDE) appeared as a significant predictor of depressive symptoms among individuals in the immigrant subgroup (Table 6a, model 2), while PFS appeared as a significant predictor of depressive symptoms among individuals in the

U.S.-born subgroup (Table 6b, model 2). The results suggest that experiencing general racial discrimination in particular has adverse effect on Asian American immigrants' depressive symptoms, while being perceived as 'perpetual foreigners' has a negative effect on depressive symptoms among the U.S.-born Asian Americans.

It is interesting to observe the differential outcomes for Asian immigrants and native-born Asian Americans. For Asian immigrants, in general, emigrating to and residing in the U.S. is probably the first time they are living as ethnic minorities in social settings. Assuming that Asian immigrants are members of an ethnic majority in their country of origin, it is unlikely that they have experienced discrimination based on their ethnic differences; much like how white Americans who were born and have lived in the U.S. might not experience racial discrimination in the U.S. societal context. Therefore, encountering discriminatory experiences due to their ethnic minority status may be especially unsettling to them. On the other hand, being perceived as perpetual foreigner may not be as distressing for them, simply because they are more likely to identify as immigrants and do not yet consider themselves as "real" Americans. Thus, the years since, and age at, immigration may be important factors to consider when examining the impact of PFS on Asian immigrants' depressive symptoms and mental health in general.

Initially, it was assumed that native-born, i.e., second and later generation, Asian Americans have advantages over Asian immigrants in recognizing RDE because they are likely to have more interaction with mainstream society and thus have keener understanding of the interplay between racial discrimination and their ethnic minority status. However, when both RDE and PFS were considered at the same time, the more ethnic-specific PFS created more distress in native-born Asian Americans. Perhaps

experiencing general racial discrimination for native-born Asian Americans is expected, while PFS is unanticipated (Goto, et al., 2002) and engenders a sense of distress. It may be likely that U.S.-born Asian Americans especially feel stressed by being perceived as foreigners, even though they were born in the U.S. and probably identify as American rather than an Asian national. This may explain why PFS is more distressing to native-born Asian Americans.

Finally, disentangling racial discrimination from language discrimination may not be done easily. As Sue and his colleagues (Derald W. Sue et al., 2007) have argued, discerning and recognizing modern forms of racism (i.e., Microaggression) can be tricky and often puts emotional pressure on those encountering these experiences. One of the possible reasons for this result may be that some first generation Asian Americans may not perceive racial discrimination as important a stress-inducing experience as acculturative stressors are, such as difficulty with English language (Yoo, et al., 2009). In addition, being perceived as a foreigner might not be as stressful for Asian immigrants – as one of the results from this study's hypotheses indicates – as for U.S.-born Asian Americans. More studies are warranted to have clearer understanding of the different forms of discrimination that are race-based.

# CHAPTER 7

# CONCLUSION

## 7.1 Strengths and Limitations of the Study

There are several shortcomings to this dissertation study. First, the respondents in the study were recruited online using a convenient sampling technique, preventing its results from being representative of Asian Americans living across the United States. The survey was initially advertised through personal and professional contacts, and then through a series of unregulated emails forwarded from these contacts. Partly because of this, the study sample was resulted in individuals with higher education and economic status compared to general Asian American population based on the 2010 U.S. Census figure (U.S. Census Bureau, 2011). In addition, English literacy was an implicit eligibility criterion that naturally drew in respondents with good or excellent English proficiency.

Second, ethnic background information was not collected as a part of this study, so it was not feasible to examine whether there are any ethnic differences in responding to racial discrimination among Asian Americans in this study sample. However, the subject of ethnic background was not part of the main research questions and hypotheses, so the limitation exists to the extent to which the data is not set up for between-ethnicity exploration. Additionally, even if ethnic background information were collected, the data set would probably not have had the power to do between-ethnicity analyses.

Third, possibly due to restriction of reporting of racial discrimination-related experiences within the previous 12 months, the range of racial discrimination experience, racial discrimination appraisal, and perpetual foreigner stress scores were clustered on the lower end of the scales, which may have affected low variance in each variable. Previous studies using the same measure, however, reported a similar range of scores (Borders & Liang, 2011; Landrine, et al., 2006), thus a cluster of low scores on these measures may not necessarily indicate measurement errors, but rather a reflection of the endemic nature of perception of racial discrimination. As the results indicate, over 95 percent of the respondents have reported actually experiencing racial discrimination on at least one occasion in the previous 12 months. Fourth, due to a small sample size, subgroup analyses lack enough power to reliably detect potential differences existing between subgroups, especially for the high versus low RDE analysis.

Despite such limitations, this dissertation research offers an important starting point to identify a number of potential factors that can be used to build an intervention research framework to address discrimination-related issues in clinical settings with Asian Americans. Additionally, its findings contribute to a better understanding of how engaging in individual coping strategies and utilizing various psychosocial resources help minimize adverse effects of racial discrimination on depressive symptoms among Asian Americans. Specifically, this study assessed for multiple forms of racial discrimination to delineate the relative importance of general and Asian-specific racial/ethnic discrimination. Finally, by considering individual-level general coping styles and situation-specific coping strategies together in predicting level of depressive symptoms under the racial discrimination experience, this study was able to indicate that general

coping styles may still be an important coping dimension when it comes to dealing with racial discrimination among Asian Americans. Furthermore, the findings regarding critical ethnic awareness as one of the significant protective factors against racial discrimination suggest that societal standing of an ethnic minority group plays a critical role in feeding into the group's strength and influence its members' ability to defend themselves against racial discrimination.

## 7.2 Implications for Social Work Profession

The findings from this study suggest several recommendations as to improve how the social work profession might address racial discrimination against Asian Americans in clinical settings, education, community-based practice, and policy advocacy.

### 7.2.1 Clinical implication

First, experiences of racial discrimination need to be addressed when conducting an intake assessment for Asian Americans seeking help with their depressive symptoms. Despite a number of empirical studies that consistently found a significant association between racial/ethnic discrimination and mental health outcomes among ethnic minorities, mental health professionals do not integrate race-based discrimination into the mental health assessment (Scurfield & Mackey, 2001). Anecdotal information and personal experiences concur that many of the current intake assessment remains largely focused on acculturation and immigration related factors among Asian Americans, perhaps inadvertently leaving out racial/ethnic discrimination issues in mental health assessment. Particularly for U.S.-born Asian Americans, experiences of fairly covert forms of contemporary racist attitudes and behaviors need to be explored in order to appropriately

address how the effects of chronic and cumulative racial discrimination may have eroded their sense of psychological protection.

Second, helping professionals need to assess for Asian American clients' general coping approaches when it comes to dealing with racial discrimination encounters. The research indicates that some forms of coping may not be beneficial and can, in fact, produce adverse effects on mental health. For example, this study's findings indicated that expressing emotions in response to racism encounters may be helpful, while isolating from social interactions and opportunities can exacerbate Asian Americans' mental health status.

Successes in clinical intervention largely depend on accurate diagnoses, consistent guidelines, and, most importantly, trust in client-therapist relationship. Among Asian Americans, low rates of service utilization and adherence to treatment are the most challenging issues in mental health treatment services. Based on present study's results, if the clinicians fail to consider covert racial discrimination as one of the considerably influential factors in Asian American's mental health, then the problems and challenges of getting and retaining Asian Americans as mental health clients may be reflecting mental health professionals' inability to identify their needs and empathize with their continued plight as ethnic minority in U.S. society.

### 7.2.2 Direct implication for education of helping professions

The findings from this study encourage educators to consistently include educational materials addressing impacts of racial discrimination experiences that are unique to Asian Americans, such as perpetual foreigner stress, in the direct mental health practice course contents. Learning clinical skills, such as cognitive behavioral therapy or

motivational interviewing approaches, will only be relevant when these technical approaches are contextualized to reflect cultures, norms, and expectations of contemporary society toward the people of color. Mental health educators may be able to address this issue as stand-alone teaching content, or blend it throughout the course objectives to highlight the importance of tailoring treatment approach to each individual and/or ethnic group.

The findings also reinforce the importance of teaching and learning about diversity and oppression as they manifest and are practiced in the communities across the United States. Learning and understanding the intricacy and complexity of race-relations in contemporary U.S. society may encourage students to think critically about the issues facing the future clients they may be working with, as well as themselves. It is crucial to engage in this discussion not only in individual classrooms, but foster program-wide discussions and provide opportunities for students to explore these important ideas across different contexts, i.e., classrooms, internship sites, and community events. For example, instructors might bring up the sociopolitical history of Asians in the U.S. and have the students discuss implications for service utilization among Asian Americans, which is one of the main hurdles they encounter in maintaining and improving their physical and mental health.

### 7.2.3 Community-based practice implication

In light of this study's findings regarding the significance of critical ethnic awareness, we need to utilize community psycho-education opportunities to raise consciousness and awareness about the impacts of racism on the Asian American community. Specifically, community psycho-education contents may consist of

disseminating the latest research findings about the impact of racial discrimination on Asian Americans' physical and mental health. In more informal community settings, they may include discussions and explorations about the ways in which being Asian Americans in the U.S. does or does not provide equal life opportunities and chances at advancing in what they do socially and professionally. These educational opportunities can be implemented in various ethnic community gatherings, such as weekend language schools, community centers, and religious organizations.

It is also important to maintain and improve collaborative partnerships between community-based social workers and community leaders to inform the policy makers about the needs for services to address issues of racism and mental health in Asian American communities. Community-based social workers need to keep community leaders abreast of up-to-date advances in the discrimination literature that can be meaningful to them. In turn, community leaders, in close collaborations with social workers and other advocates, should apply constant pressure to local and state policy makers about the importance of protecting and ensuring a sense of belonging for the Asian American community, because, without the sense of inclusion in the larger community, Asian Americans may remain isolated. We need to ensure that the presence of Asian Americans engenders basic civil and legal protections that they deserve, so they can integrate and contribute to the larger community without feeling like they are being used selectively to advance the agenda of majority whites.

### 7.2.4 Policy implication

The results indicated that Asian Americans' actual experiences of discrimination, but not their appraisal of discrimination, was associated with higher levels of depressive

symptoms. It may mean that Asian Americans may not be benefiting as much as they should from U.S. Civil Rights policies designed to intervene in racial discrimination against ethnic/racial minority groups. The myth of Asian Americans as a model minority that has achieved the "American dream," particularly in educational and occupational domains, may lead some non-Asian Americans to be less sensitive to violations of civil rights toward Asian Americans as a form of racial discrimination. The fact that individuals being exposed to racial discrimination experiences alone is associated with more depressive symptoms underscores the need to intervene from outside of Asian Americans or their community (i.e., societal change in policy enforcement), in addition to continually striving for the intervention strategies from inside the community – at individual and intra-community level.

### 7.3 Implications and Future Directions

The results from this dissertation research provide implications for social work practice as well as future directions in the research on Asian American mental health. First, based on the finding that suggests Asian immigrants and U.S.-born Asian Americans differ in how they experience race- and ethnic-based discrimination, future studies need to closely examine the interplay of acculturation and discrimination and how this interaction may explain the differences in perception and recognition of racial discrimination in Asian Americans, which in turn is importantly related to their mental health.

Second, the finding regarding protective properties of critical ethnic awareness on depressive symptoms in Asian Americans suggests that it is important to consider

individual- and community-level psychological empowerment as one of the psychosocial resources to foster an effort to create prevention and intervention programs in Asian American community. Previous studies on Asian Americans have suggested that learning about and identifying with their ethnic heritage and culture may act as a protective barrier against the onslaught of race- and ethnic-based prejudice and discrimination (Brondolo, Gallo, & Myers, 2009; M. H. Chae & Foley, 2010; Moloney, et al., 2008; Yoo & Lee, 2009). The present study's finding adds critical ethnic awareness to the list of psychosocial resources deemed beneficial for fostering and maintaining psychological well-being of Asian Americans in the face of discrimination and social injustices experienced.

Third, findings from the present study may be useful in designing and testing prevention and intervention programs in the community, as well as in clinical, setting. The research indicates that significant disparities still exist in access to and availability of mental health services in Asian American communities. Introducing programs and counseling approaches tailored to Asian Americans may help to increase the relevancy of the mental health services.

In conclusion, along with other researches on the effects of discrimination against Asian Americans, findings from this dissertation study may help to advocate for overall well-being of Asian Americans. Specifically, findings from the present study indicated that racial discrimination experience may increase depressive symptoms in this sample of Asian Americans, even without assessing the experience as stressful. This means that avoiding or preventing Asian Americans from experiencing racial discrimination in the first place might improve their overall sense of well-being. One way is to find for Asian

Americans to learn various ways to reduce negative impact of racism when they do experience them. For Asian Americans in clinical setting, it is important to assess for sociocultural factors, such as racial discrimination experience, that contribute to presenting mental health symptoms.

Another approach to improving Asian Americans overall well-being is through community-based activism that directly addresses civil rights issues influencing Asian American communities through political engagement at local, state, and federal level. Currently, there are several advocacy groups, locally and nationwide, that work to enhance Asian American communities overall welfare, such as Asian American Institute (www.aaichicago.org) in Chicago, the Minkwon Center for Community Action (www.minkwon.org) in New York City, or Asian Pacific Partners for Empowerment, Advocacy, and Leadership (www.appealforcommunities.org) in San Francisco. Although outright elimination of racial discrimination in the near future (or at all, for that matter) is unrealistic, it is critically important to continue the effort to end its pervasive impact on ethnic minorities, including Asian Americans. Persistent and continual commitment to empirical and intervention research should be encouraged and required in order to curtail and ultimately erase negative consequences of racial and ethnic discrimination of Asian Americans.

# APPENDIX

## A. Informed Consent Form

DESCRIPTION OF THE STUDY: Asian Americans, who are U.S. citizens or immigrants and at least 18 years old, are invited to participate in a research study examining their experiences of living in the United States. As a part of the dissertation research, I am interested in finding out how Asian Americans cope with various sociocultural stresses. You will be asked to respond to series of questions. I encourage you to answer openly and honestly. Your answers to this research study may bring to light effective ways of dealing with stress for Asian Americans.

RISKS AND BENEFITS: There is no direct benefit of participating in this online survey. You may feel uncomfortable sharing sensitive information such as personal experiences with unfair events. If answering any questions in the study causes you to feel any discomfort, you may decide to stop at any time during the survey. Some participants may find that sharing this type of experiences anonymously may provide a feeling relief. Your participation will be helpful in contributing to the body of knowledge on Asian Americans' experiences with sociocultural stresses and inform potential intervention strategies in the future.

PAYMENTS: If you are eligible for this study, you will receive $10 in VISA gift card (or cash for paper-and-pencil survey) upon completion as a small token of appreciation for your participation. You will receive detailed instruction at the conclusion of the survey regarding how you can receive this payment.

LENGTH OF THE SURVEY: Your participation will take approximately 15-20 minutes.

If you would like further information about this research, you may contact the principle investigator at *kimisok@umich.edu*.

The University of Michigan Institutional Review Board Health Sciences and Behavioral Sciences has approved and determined that this study is exempt from ongoing IRB oversight.

*You are about to start a survey that will take approximately 15-20 minutes.*
*Your time completing this survey is very much appreciated.*

**B. Survey Questions**

| PART I: Sociodemographic Information |
|---|

Let's start with some basic questions about you...

SD1. What is your gender? ☐ MALE ☐ FEMALE

SD2. How old are you? _______ years old

SD3. What is the highest level of education you completed?

☐ Less than high school
☐ High school / GED
☐ Some college
☐ Associate degree (e.g., AA)
☐ College or university degree (e.g., BA, BS)
☐ Masters/professional degree (e.g., MA, MS, MBA)
☐ Doctorate degree (e.g., PhD)
☐ Professional degree (e.g., JD, MD)

SD4. Which of the following best describe your employment status?

☐ Employee of a PRIVATE company or business or of an individual, for wages, salary or commissions
☐ Local/State/Federal GOV'T employee (city, county, etc.)
☐ Unemployed, NOT seeking employment
☐ SELF-EMPLOYED in own business, professional practice, or farm
☐ Working WITHOUT PAY in family business or farm
☐ Unemployed, actively seeking employment
☐ Full- or Part-time student
☐ Homemaker

SD5. Are you a professional studying/working/teaching in health or mental health related field? (e.g., social worker, nurse, psychologist, psychiatrist, etc.)?

☐ Yes ☐ No

SD6. What is your combined annual household income (before taxes)?

☐ Under $20,000
☐ $20,000 - $29,999
☐ $60,000 - $69,999
☐ $70,000 - $79,999
☐ $110,000 - $119,999
☐ $120,000 - $129,999

☐ $30,000 - $39,999 ☐ $80,000 - $89,999 ☐ $130,000 - $139,999

☐ $40,000 - $49,999 ☐ $90,000 - $99,999 ☐ $140,000 - $149,999

☐ $50,000 - $59,999 ☐ $10,000 - $109,999 ☐ Over $150,000

SD7. How many people live in your household?

__________________ # People

SD8. What is your marital status?

☐ Single, never married ☐ Widowed

☐ Divorced/separated ☐ Married/domestic partnership

SD9. Were you born in the United States?

☐ Yes ☐ No

SD9a. If you were not born in the U.S., how old were you when you came to live in the U.S?

_________ Years old

SD10. What is your religious preference?

☐ Protestantism ☐ Catholicism ☐ Buddhism

☐ Hindu ☐ Muslim ☐ Judaism

☐ Agnostic or Atheist ☐ No religion ☐ Others (Specify):________________

SD11. How often did you usually attend religious services in the past 12 months?

☐ Never ☐ 2-3X a month ☐ Daily

☐ Less than once a month ☐ Once a week

☐ Once a month ☐ 2-3X a week

## PART II: Social Support

Now we're going to ask you about the support you receive from various social networks, including professional contacts, family members, and friends.

| ES1. How much do your **colleagues or co-workers…** | A lot | Some | A little | None at all |
|---|---|---|---|---|
| 1.1. Really care about you? | 3 | 2 | 1 | 0 |
| 1.2. Understand the way you feel about things? | 3 | 2 | 1 | 0 |
| 1.3. Appreciate you? | 3 | 2 | 1 | 0 |

| ES2. How much do **you**… | A lot | Some | A little | None at all |
|---|---|---|---|---|
| 2.1. Really count on them to listen to you when you need to talk? | 3 | 2 | 1 | 0 |
| 2.2. Rely on them for help if you have a serious problem, even though they would have to go out of their way to do so? | 3 | 2 | 1 | 0 |
| 2.3. Relax and be yourself around them? | 3 | 2 | 1 | 0 |
| 2.4. Open up to them if you need to talk about your worries | 3 | 2 | 1 | 0 |
| 2.5. Really count on them to be dependable when you need help? | 3 | 2 | 1 | 0 |

| ES3. How much do your **family members…** | A lot | Some | A little | None at all |
|---|---|---|---|---|
| 3.1. Really care about you? | 3 | 2 | 1 | 0 |
| 3.2. Understand the way you feel about things? | 3 | 2 | 1 | 0 |
| 3.3. Appreciate you? | 3 | 2 | 1 | 0 |

| ES4. How much do **you**… | A lot | Some | A little | None at all |
|---|---|---|---|---|
| 4.1. Really count on them to listen to you when you need to talk? | 3 | 2 | 1 | 0 |
| 4.2. Rely on them for help if you have a serious problem, even though they would have to go out of their way to do so? | 3 | 2 | 1 | 0 |
| 4.3. Relax and be yourself around them? | 3 | 2 | 1 | 0 |

| | | | | |
|---|---|---|---|---|
| 4.4. Open up to them if you need to talk about your worries | 3 | 2 | 1 | 0 |
| 4.5. Really count on them to be dependable when you need help? | 3 | 2 | 1 | 0 |

Now, a few questions about your friends. Try to keep in mind that friends are those people whom you feel close to rather than those people who are just acquaintances.

| ES5. How much do your **colleagues or professional co-workers…** | A lot | Some | A little | None at all |
|---|---|---|---|---|
| 5.1. Really care about you? | 3 | 2 | 1 | 0 |
| 5.2. Understand the way you feel about things? | 3 | 2 | 1 | 0 |
| 5.3. Appreciate you? | 3 | 2 | 1 | 0 |

| ES6. How much do **you**… | A lot | Some | A little | None at all |
|---|---|---|---|---|
| 6.1. Really count on them to listen to you when you need to talk? | 3 | 2 | 1 | 0 |
| 6.2. Rely on them for help if you have a serious problem, even though they would have to go out of their way to do so? | 3 | 2 | 1 | 0 |
| 6.3. Relax and be yourself around them? | 3 | 2 | 1 | 0 |
| 6.4. Open up to them if you need to talk about your worries | 3 | 2 | 1 | 0 |
| 6.5. Really count on them to be dependable when you need help? | 3 | 2 | 1 | 0 |

## PART III: Coping with general stress

Next, we want to understand how you deal with stress. As you read through the following statements, please answer them based how you handled GENERAL STRESSES. Please read each item below and determine the extent to which you used it in handling your past general stresses.

| | Not at all | A little | Some-what | Much | Very much |
|---|---|---|---|---|---|
| GC1. I let out my feelings to reduce the stress. | 0 | 1 | 2 | 3 | 4 |
| GC2. I tried to forget the whole thing. | 0 | 1 | 2 | 3 | 4 |
| GC3. I blamed myself. | 0 | 1 | 2 | 3 | 4 |
| GC4. I tackled the problem head on | 0 | 1 | 2 | 3 | 4 |
| GC5. I asked myself what was really important, and discovered that things weren't so bad after all. | 0 | 1 | 2 | 3 | 4 |
| GC6. I talked to someone that I was very close to. | 0 | 1 | 2 | 3 | 4 |
| GC7. I wished that the situation had never started. | 0 | 1 | 2 | 3 | 4 |
| GC8. I criticized myself for what happened. | 0 | 1 | 2 | 3 | 4 |
| GC9. I avoided being with people. | 0 | 1 | 2 | 3 | 4 |
| GC10. I knew what had to be done, so I doubled my efforts and tried harder to make things work. | 0 | 1 | 2 | 3 | 4 |
| GC11. I convinced myself that things aren't quite as bad as they seem. | 0 | 1 | 2 | 3 | 4 |
| GC12. I got in touch with my feelings and just let them go. | 0 | 1 | 2 | 3 | 4 |
| GC13. I asked a friend or relative I respect for advice. | 0 | 1 | 2 | 3 | 4 |
| GC14. I avoided thinking or doing anything about the situation. | 0 | 1 | 2 | 3 | 4 |
| GC15. I hoped that if I waited long enough, things would turn out OK. | 0 | 1 | 2 | 3 | 4 |
| GC16. I spent some time by myself | 0 | 1 | 2 | 3 | 4 |

## PART IV: Racial/Ethnic Experiences in the U.S.

We are interested in learning about your experiences with discrimination based on your race/ethnicity. Please think about the PAST 12 MONTHS. **For each question, please circle a number that best captures the things that have happened to you.**

G1. How often have you been treated unfairly by **teachers and professors** because of your race/ethnic group?

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| In the past year? | Never | 0 | 1 | 2 | 3 | 4 | 5 | Almost all the time |
| How stressful was this for you? | Not at all stressful | 0 | 1 | 2 | 3 | 4 | 5 | Extremely stressful |

G2. How often have you been treated unfairly by **employers, bosses, and supervisors** because of your race/ethnic group?

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| In the past year? | Never | 0 | 1 | 2 | 3 | 4 | 5 | Almost all the time |
| How stressful was this for you? | Not at all stressful | 0 | 1 | 2 | 3 | 4 | 5 | Extremely stressful |

G3. How often have you been treated unfairly by **your co-workers, fellow students and colleagues** because of your race/ethnic group?

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| In the past year? | Never | 0 | 1 | 2 | 3 | 4 | 5 | Almost all the time |
| How stressful was this for you? | Not at all stressful | 0 | 1 | 2 | 3 | 4 | 5 | Extremely stressful |

G4. How often have you been treated unfairly by **people in service jobs** (by store clerks, waiters, bartenders, bank tellers and others) because of your race/ethnic group?

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| In the past year? | Never | 0 | 1 | 2 | 3 | 4 | 5 | Almost all the time |
| How stressful was this for you? | Not at all stressful | 0 | 1 | 2 | 3 | 4 | 5 | Extremely stressful |

G5. How often have you been treated unfairly by **strangers** because of your race/ethnic group?

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| In the past year? | Never | 0 | 1 | 2 | 3 | 4 | 5 | Almost all the time |
| How stressful was this for you? | Not at all stressful | 0 | 1 | 2 | 3 | 4 | 5 | Extremely stressful |

G6. How often have you been treated unfairly by **people in helping jobs** (by doctors, nurses, psychiatrists, case workers, dentists, school counselors, therapists, social workers and others) because of your race/ethnic group?

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| In the past year? | Never | 0 | 1 | 2 | 3 | 4 | 5 | Almost all the time |
| How stressful was this for you? | Not at all stressful | 0 | 1 | 2 | 3 | 4 | 5 | Extremely stressful |

G7. How often have you been treated unfairly by **neighbors** because of your race/ethnic group?

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| In the past year? | Never | 0 | 1 | 2 | 3 | 4 | 5 | Almost all the time |
| How stressful was this for you? | Not at all stressful | 0 | 1 | 2 | 3 | 4 | 5 | Extremely stressful |

G8. How often have you been treated unfairly by **institutions** (schools, universities, law firms, the police, the courts, the Department of Social Services, the Unemployment Office and others) because of your race/ethnic group?

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| In the past year? | Never | 0 | 1 | 2 | 3 | 4 | 5 | Almost all the time |
| How stressful was this for you? | Not at all stressful | 0 | 1 | 2 | 3 | 4 | 5 | Extremely stressful |

G9. How often have you been treated unfairly by **people that you thought were your friends** because of your race/ethnic group?

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| In the past year? | Never | 0 | 1 | 2 | 3 | 4 | 5 | Almost all the time |
| How stressful was this for you? | Not at all stressful | 0 | 1 | 2 | 3 | 4 | 5 | Extremely stressful |

G10. How often have you been **accused or suspected** of doing something wrong (such as stealing, cheating, not doing your share of the work, or breaking the law) because of your race/ethnic group?

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| In the past year? | Never | 0 | 1 | 2 | 3 | 4 | 5 | Almost all the time |
| How stressful was this for you? | Not at all stressful | 0 | 1 | 2 | 3 | 4 | 5 | Extremely stressful |

G11. How often people **misunderstood** your intentions and motives because of your race/ethnic group?

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| In the past year? | Never | 0 | 1 | 2 | 3 | 4 | 5 | Almost all the time |
| How stressful was this for you? | Not at all stressful | 0 | 1 | 2 | 3 | 4 | 5 | Extremely stressful |

G12. How often did you want to **tell someone off** for being racist towards you but didn't say anything?

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| In the past year? | Never | 0 | 1 | 2 | 3 | 4 | 5 | Almost all the time |
| How stressful was this for you? | Not at all stressful | 0 | 1 | 2 | 3 | 4 | 5 | Extremely stressful |

G13. How often have you been **really angry** about something racist that was done to you?

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| In the past year? | Never | 0 | 1 | 2 | 3 | 4 | 5 | Almost all the time |

| How stressful was this for you? | Not at all stressful | 0 | 1 | 2 | 3 | 4 | 5 | Extremely stressful |
|---|---|---|---|---|---|---|---|---|

G14. How often have you been **forced to take drastic steps** (such as filing a grievance, filing a lawsuit, quitting your job, moving away, and other actions) to deal with some racist thing that was done to you?

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| In the past year? | Never | 0 | 1 | 2 | 3 | 4 | 5 | Almost all the time |
| How stressful was this for you? | Not at all stressful | 0 | 1 | 2 | 3 | 4 | 5 | Extremely stressful |

G15. How often have you been **called a racist name**?

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| In the past year? | Never | 0 | 1 | 2 | 3 | 4 | 5 | Almost all the time |
| How stressful was this for you? | Not at all stressful | 0 | 1 | 2 | 3 | 4 | 5 | Extremely stressful |

G16. How often have you gotten into **an argument or a fight** about something racist that was done to you or done to another member of your race/ethnic group?

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| In the past year? | Never | 0 | 1 | 2 | 3 | 4 | 5 | Almost all the time |
| How stressful was this for you? | Not at all stressful | 0 | 1 | 2 | 3 | 4 | 5 | Extremely stressful |

G17. How often have you been **made fun of, picked on, pushed, shoved, hit, or threatened with harm** because of your race/ethnic group?

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| In the past year? | Never | 0 | 1 | 2 | 3 | 4 | 5 | Almost all the time |
| How stressful was this for you? | Not at all stressful | 0 | 1 | 2 | 3 | 4 | 5 | Extremely stressful |

G18. How often have you felt you were treated unfairly because you **do not speak English well or with accent**?

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| In the past year? | Never | 0 | 1 | 2 | 3 | 4 | 5 | Almost all the time |
| How stressful was this for you? | Not at all stressful | 0 | 1 | 2 | 3 | 4 | 5 | Extremely stressful |

G19. How different would your life be now if you **had not been** treated unfair ways because of your race/ethnicity?

| | The same as it is now | A little different | Different in a few ways | Different in a lot of ways | Different in most ways | Totally different |
|---|---|---|---|---|---|---|
| In the past year? | 0 | 1 | 2 | 3 | 4 | 5 |
| In your entire life? | 0 | 1 | 2 | 3 | 4 | 5 |

G20. During the past 12 months, did any of these happen to you or someone you know personally?

| | This never happened to me or someone I know | This happened but did not bother me | This happened and I was slightly bothered | This happened and I was upset | This happened and I was extremely upset |
|---|---|---|---|---|---|
| a. Some you did not know spoke slow and loud at you. | 0 | 1 | 2 | 3 | 4 |
| b. Someone told you that all Asian people look alike. | 0 | 1 | 2 | 3 | 4 |
| c. You are told that "you speak English so well." | 0 | 1 | 2 | 3 | 4 |
| d. You are asked where you are really from. | 0 | 1 | 2 | 3 | 4 |

## PART VI: Coping with racial/ethnic experiences

As you read through the following statements, please answer them based on how you handled PAST DISCRIMINATIONS BECAUSE OF YOUR RACE/ETHNICITY.

| | Not at all | A little | Some-what | Much | Very much |
|---|---|---|---|---|---|
| RC1. I let out my feelings to reduce the stress. | 0 | 1 | 2 | 3 | 4 |
| RC2. I tried to forget the whole thing. | 0 | 1 | 2 | 3 | 4 |
| RC3. I blamed myself. | 0 | 1 | 2 | 3 | 4 |
| RC4. I tackled the problem head on | 0 | 1 | 2 | 3 | 4 |
| RC5. I asked myself what was really important, and discovered that things weren't so bad after all. | 0 | 1 | 2 | 3 | 4 |
| RC6. I talked to someone that I was very close to. | 0 | 1 | 2 | 3 | 4 |
| RC7. I wished that the situation had never started. | 0 | 1 | 2 | 3 | 4 |

| | Not at all | A little | Some-what | Much | Very much |
|---|---|---|---|---|---|
| RC8. I criticized myself for what happened. | 0 | 1 | 2 | 3 | 4 |
| RC9. I avoided being with people. | 0 | 1 | 2 | 3 | 4 |
| RC10. I knew what had to be done, so I doubled my efforts and tried harder to make things work. | 0 | 1 | 2 | 3 | 4 |
| RC11. I convinced myself that things aren't quite as bad as they seem. | 0 | 1 | 2 | 3 | 4 |
| RC12. I got in touch with my feelings and just let them go. | 0 | 1 | 2 | 3 | 4 |
| RC13. I asked a friend or relative I respect for advice. | 0 | 1 | 2 | 3 | 4 |
| RC14. I avoided thinking or doing anything about the situation. | 0 | 1 | 2 | 3 | 4 |
| RC15. I hoped that if I waited long enough, things would turn out OK. | 0 | 1 | 2 | 3 | 4 |
| RC16. I spent some time by myself | 0 | 1 | 2 | 3 | 4 |

## PART VII: Mental Health

Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way during the PAST WEEK.

| | Rarely or none of the time (<1 day) | Some or a little of the time (1-2 days) | Occasionally or moderate amount of time (3-4 days) | Most or all of the time (5-7 days) |
|---|---|---|---|---|
| D1. I was bothered by things that usually don't bother me. | 0 | 1 | 2 | 3 |
| D2. I did not feel like eating; my appetite was poor. | 0 | 1 | 2 | 3 |
| D3. I felt that I could not shake off the blues even with help from my family or friends. | 0 | 1 | 2 | 3 |
| D4. I had trouble keeping my mind on what I was doing. | 0 | 1 | 2 | 3 |

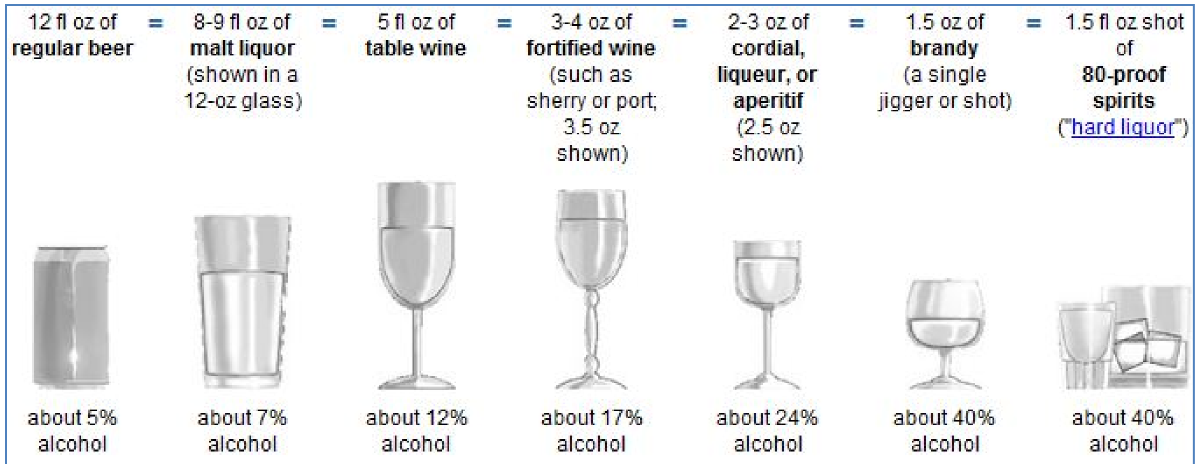
| | Rarely or none of the time (<1 day) | Some or a little of the time (1-2 days) | Occasionally or moderate amount of time (3-4 days) | Most or all of the time (5-7 days) |
|---|---|---|---|---|
| D5. I felt depressed. | 0 | 1 | 2 | 3 |
| D6. I felt that everything I did was an effort. | 0 | 1 | 2 | 3 |
| D7. I thought my life had been a failure. | 0 | 1 | 2 | 3 |
| D8. I felt fearful. | 0 | 1 | 2 | 3 |
| D9. My sleep was restless. | 0 | 1 | 2 | 3 |
| D10. I talked less than usual. | 0 | 1 | 2 | 3 |
| D11. I felt lonely. | 0 | 1 | 2 | 3 |
| D12. People were unfriendly. | 0 | 1 | 2 | 3 |
| D13. I had crying spells. | 0 | 1 | 2 | 3 |
| D14. I felt sad. | 0 | 1 | 2 | 3 |
| D15. I felt that people dislike me. | 0 | 1 | 2 | 3 |
| D16. I could not get "going." | 0 | 1 | 2 | 3 |

## PART VIII: Health-related Behaviors

H1. Think about the past 12 months. How often did you have at least one drink?

- ☐ Nearly every DAY
- ☐ 3-4 days per WEEK
- ☐ 1-2 days per WEEK
- ☐ 1-3 days per MONTH
- ☐ Less than once a month
- ☐ Did not drink in the past 12 months

H2. Picture below represents one (1) standard drink equivalent across different types of alcoholic beverage. On the days you drank in the past 12 months, ON AVERAGE, about how many drinks did you usually have per day?




☐ 1-3 drinks

☐ 4-5 drinks

☐ 6-10 drinks

☐ 10 or more drinks

☐ I did not drink in the past 12 months

H3. Which of the following best describes you?

☐ I have never smoked tobacco/have only tried smoking once or twice

☐ I have given up smoking tobacco

☐ I smoke tobacco occasionally

☐ I smoke tobacco regularly

H3A. If you smoke tobacco, how much do you smoke in a week? (*Please write the number of cigarettes. Enter 0 if none*)
__________cigarettes

H4. Please indicate which of the following types of gambling you have done in the past 12 months (Check all that applies)

| | |
|---|---|
| ☐ American card games for money (poker, blackjack, etc.) | ☐ Asian card games (mah-jong, hwato, sap-san, pu-soy, etc.) |
| ☐ Bet on animal contests (horse or dog racing, cock fighting, etc.) | ☐ Bet on sporting events (pro or college football, basketball, baseball, etc.) |
| ☐ Dice games | ☐ Slot machines (including poker, pachinko, etc.) |
| ☐ Bet on lotteries (Lotto, Keno, etc.) | ☐ Bingo for money |

| ☐ Played a game of skill for money (shoot pool, bowling, golf, etc.) | ☐ Pulled tabs or other paper games other than lotteries (office pools, etc.) |
|---|---|
| ☐ Other forms of gambling not listed here | ☐ Did not gamble in the past 12 months. |

H5. How often did you play any of these gambling games described in previous question in the past 12 months?

☐ Nearly every DAY
☐ 3-4 days per WEEK
☐ 1-2 days per WEEK
☐ 1-3 days per MONTH
☐ Less than once a MONTH
☐ Did not gamble in the past 12 months

H6. ON AVERAGE, how much money did you bet on gambling per month in the past 12 months?

☐ More than $10,000
☐ More than $1,000 up to $10,000
☐ More than $100, up to $1,000
☐ More than $10 up to $100
☐ More than $1 up to $10
☐ Less than $1
☐ Did not gamble in the past 12 months

## PART IX: Social Settings in Racial/Ethnic Contexts

Think about different settings/context listed below that you have been a part of in the past 12 months, what was the **approximate proportion** of Asian Americans in those settings/contexts?

| | Less than 10% | 11-20% | 21-30% | 31-40% | 41-50% | 50% or more |
|---|---|---|---|---|---|---|
| 1. Friends | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. Co-workers | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. Neighborhood | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. Workplace | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. Professional organizations | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. Schools | 1 | 2 | 3 | 4 | 5 | 6 |

## PART X: Racial/Ethnic Affiliation

Please answer the following questions, thinking about your racial/ethnic group with which you most identify.

EA1. How important is our racial/ethnic identity to the way you think about yourself?

- ☐ Not very important
- ☐ Very important
- ☐ Fairly important
- ☐ Extremely important

EA2. How often do you think about being a member of your racial/ethnic group?

- ☐ Hardly ever
- ☐ Fairly often
- ☐ Once in a while
- ☐ A lot

EA3. Indicate the extent to which something that happens in your life is affected by what happens to other people in your group?

- ☐ Not at all
- ☐ Some
- ☐ Not very much
- ☐ A great deal

EA4. How proud do you feel when a member of your racial/ethnic group accomplishes something outstanding?

- ☐ Not at all
- ☐ Some
- ☐ Not very much
- ☐ A great deal

EA5. Please answer the following questions…

| | Strongly Disagree | Disagree | Neither | Agree | Strongly Agree |
|---|---|---|---|---|---|
| 5a. I think a lot about the influence that society has on people | 1 | 2 | 3 | 4 | 5 |
| 5b. I really enjoy finding about reasons or causes for people's opinions and behaviors | 1 | 2 | 3 | 4 | 5 |
| 5c. I think a lot about the influence that society has on my thoughts, feelings and behaviors | 1 | 2 | 3 | 4 | 5 |
| 5d. I think a lot about how society disadvantages people in my racial/ethnic group | 1 | 2 | 3 | 4 | 5 |
| 5e. I don't think about the difference racial/ethnic group I belong to – I pretty much think of myself as an individual | 1 | 2 | 3 | 4 | 5 |
| 5f. I think about the influence that society has on who I am and what I can accomplish | 1 | 2 | 3 | 4 | 5 |
| 5g. I don't think much about the privileges that my racial/ethnic group has in my society | 1 | 2 | 3 | 4 | 5 |

**PART XI: Now, we want to ask you about your language use.**

LP1. How well do you…

| | Poor | Fair | Good | Excellent |
|---|---|---|---|---|
| a. Speak English? | 1 | 2 | 3 | 4 |
| b. Read English? | 1 | 2 | 3 | 4 |
| c. Write in English? | 1 | 2 | 3 | 4 |

LP2. What **primary** Asian dialect or language do you speak or understand?

☐ Cantonese/Mandarin
☐ Tagalog/Ilocano
☐ None
☐ Japanese
☐ Vietnamese
☐ Other: ____________________
☐ Korean

LP3. If you speak or understand any of the Asian dialect or language listed in question LP2, how well do you…

| | Poor | Fair | Good | Excellent |
|---|---|---|---|---|
| a. Speak that language? | 1 | 2 | 3 | 4 |

| | | | | |
|---|---|---|---|---|
| b. Read that language? | 1 | 2 | 3 | 4 |
| c. Write in that language? | 1 | 2 | 3 | 4 |

**!!!THIS IS END OF THE SURVEY!!!**

Thank you for spending your valuable time completing this survey. If you would like to leave a comment for the researchers regarding your thoughts about any aspects of this web survey, please use the box below. We would very much appreciate your feedback.

If you would like to be contacted in the future about this research study, please send the separate email to principle investigator, Isok Kim, at *kimisok@umich.edu*. Publicly available materials (e.g., publications, reports) will be distributed to those who wished to be notified when the information becomes available.

**AGAIN, THANK YOU VERY MUCH FOR YOUR PARTICIPATION!!!**

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