

The Role of Coping and Racial Identity in the Relationship between Racism-Related Stress and Psychological Distress for Asian Americans

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## ABSTRACT

### The Role of Collectivistic Coping and Racial Identity in the Relationship Between Racism-Related Stress and Psychological Distress for Asian Americans

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The present study examined the psychological effects of racism-related stress on Asian Americans (N=866). The purpose of the current study was to investigate a stress and coping model for Asian Americans by considering culturally based coping options. As such, the study sought to understand collectivistic coping as mediating the relationship between racism-related stress and psychological distress for Asian Americans. The stress and coping model, which was tested through Structural Equation Modeling (SEM), hypothesized that higher racism-related stress leads to increased use of collectivistic coping strategies, which then decreases psychological distress (depression, anxiety, hostility and defensive paranoia). It was hypothesized that higher racism-related stress would have a positive effect on more collectivistic coping strategies which would then have a negative effect (decrease) on psychological distress. Racial identity status attitudes were also included separately to understand one's experience with racism related stress to provide more information into the within group variability in racism-related stress reactions that exist among Asian Americans.

Results from this study indicated that Asian Americans utilize a culturally based coping style to respond to racism-related stress. However, those coping strategies are significantly related to increased psychological distress, which is contrary to the proposed hypothesis.

Although not all the hypotheses were supported, the results of the study showed an overall acceptable model fit. The results therefore provide strong evidence to support that psychological distress is experienced as a result of racism-related stress for Asian Americans, despite the use of collectivistic coping strategies.

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have to pretend. The data shows clearly the damage and cost of racism – but what is more compelling is the resiliency found in our communities and a belief in something greater!

## Chapter 1

### Introduction

People do not live in complete isolation but exist within the context of a larger environment. Consequently, people are affected by the way they experience their environment, whether positive, negative or neutral. There are various types of factors in one's environment that can impact how a person responds, interacts and feels. In some situations, the transaction between a person and his or her environment can produce stress.

Stress has been conceptualized from a number of different perspectives. In some domains, medical literature addresses stress as an environmental demand (stimuli) that "strains" the body. The stimulus approach focuses on identifying, describing, and quantifying events (stimuli) in the environment that are stressful. Stress has been conceptualized by Selye (1956) as the body's active, physiological response, or set of reactions and processes to a physical or psychological demand (response).

However in the psychological literature, Lazarus and Folkman's (1984) model of stress and coping has become the predominant framework in studying the effects of stress. In their model, psychological and social factors or "stressors" influence the interaction between the person and environment through a person's perception and his or her resources to address or adapt to stress. They argue that all stimulus/response approaches preceding their model are circular given nebulous determinations of whether the stimulus or the response activates stress (Lazarus & Folkman, 1984). Instead, Lazarus and Folkman (1984) propose a *relational* or *transactional* model of stress where stress is not so much the event, or reaction to the event, but the transaction between the *person* and the *environment*. In this transaction, a person must appraise the event first to assess whether it requires a response, action, or additional resources to

adapt or cope with the stressor, particularly if the stressor can pose a danger or threat (Lazarus & Folkman, 1984).

In their model, psychological stress occurs when an individual accesses personal or social resources to respond to an event and those resources are insufficient to address the event. These stress reactions can be physical, social and/or psychological and can also interact with one another. Lazarus and Folkman's (1984) model of stress and coping explains that because psychological stress defines an unfavorable person-environment relationship, its essence lies in process and change. An individual alters circumstances, or how they are interpreted, to make them appear more favorable in a process called coping. When an effort to cope with stress fails, stress reactions increase in intensity, which can be harmful.

The conceptualization of the various stressors existing in an environment falls into two categories: acute events, which result in a transient response that is highly contained or situation-bound, and chronic events (i.e., accumulation of negative events) that result in a response pattern that emerges slowly over time (Pearlin, 1993). Kessler, Price, and Wortman (1985) define acute stressors as those focused on the role of major life events (e.g., graduation, death, divorce) that are time-limited and require some change on the part of the individual. On the other hand, chronic stressors are life events that persist continuously over time (e.g., living in an abusive relationship, financial difficulties, racial discrimination) and are not initiated by an acute event (Cohen et al., 1982). Life event stressors typically have an ending but chronic stressors have an open-ended time course and require significant coping resources but without guarantee of a resolution.

While stress is not intrinsically undesirable or uncontrollable, many stressors such as acute, negative life events or chronic strain result in adverse consequences for people such as

decreased physical or psychological health. In some cases, the psychological and emotional reactions can manifest themselves in posttraumatic stress symptoms including depression and anxiety (Kuo, 1995; Kessler, 1997). Research shows evidence indicating that chronic stressors demonstrate better predictions of psychological distress (Billings & Moos, 1984; Lazarus & Folkman, 1984; Pearlin et al., 1981). Wheaton (1997) describes nine forms of chronic stressors including “structural constraints” which are stressors that occur as “consequences of the structure of the social environment that leave the individual with reduced opportunities, choices, or alternatives” (p. 59). Often, chronic stress in the form of structural constraints can produce more intense stress reactions than others and prove more difficult to cope with.

The harmful consequences of stress (intensity and duration) make it necessary for helping professionals to understand how stress leads to harmful outcomes and what factors protect against these outcomes. Nonetheless, not all people who experience stress become depressed, anxious, or experience psychological distress. In addition, what is stressful to one individual may not be for another. Given that there is variability in the ways that people experience stressors, the main focus of this study is to examine what causes variability in reactions to stressors.

There have been consistent efforts to explain the variation in the relationship between stress and psychological distress in terms of stress modifying effects (Kessler, 1997). However, because there are inconsistent findings regarding the factors that intervene on the stress-mental health relationship, there is a need to extend and elaborate the investigation by examining the variables that mediate and moderate the potential occurrence of stress and psychological distress.

In order to assess mitigating factors that contribute to the stress-mental health relationship, it is reasonable to look at a more complex stress situation that involves variability. For instance, the model of stress and coping depends on a person’s resources, and are limited for

People of Color, because resources are often blocked by racism. More specifically, access to personal or social resources for People of Color are different than with White Americans (Carter, 2007). The influence of social stratification and patterns of institutional and cultural manifestations of oppression have greater impact on People of Color's exposure to stress. Racism has been identified as a chronic stressor for People of Color (Harrell, 2000), which in turn, can result in negative psychological outcomes or psychological distress.

The construct of racism began to receive scholarly attention in the early 1970s in social psychology and was subsequently introduced into psychological literature as a "stressor" in the 1990s (Landrine & Klonoff, 1996; Williams, Neighbors, & Jackson, 2003; Fischer & Shaw, 1999). An understanding of racism-related life experiences was first addressed by Slavin et al. (1991), who extend Lazarus and Folkman's (1984) model, contending that racism operates as a race-related stressor for many minorities. Harrell (2000) and Clark, Anderson, Clark and Williams (1999) also base their models of racism-related stress on Lazarus and Folkman's conceptualization of stress, proposing that negative psychological and physiological outcomes result when an individual is unable to respond to direct or indirect experiences of racist events.

In fact, racism-related stress has become a prominent variable in psychological literature. This suggests that increased stress related to racism has a positive relationship to increased depressive and anxious symptoms and has been argued to be a significant source of chronic stress for racial minorities (Clark, Anderson, Clark & Williams, 1999; Ocampo, 2000; Utsey et al., 1999; Dion, 2002; Kessler, Michelson, & Williams, 1999). In general, these studies suggest a positive relationship between racism and psychological stress (Fang & Myers, 2001; Jackson, Brian, William, Torres, Sellers, & Brown, 1996; McNeilly, Anderson, Armistead, Clark, Corbett, Robinson, Pieper & Lepisto, 1996) and an inverse relationship between racism and both life

satisfaction and self-esteem (e.g., Broman, Mavaddat, & Hsu, 1997; Krieger & Sidney, 1996; Noh & Kasper, 2003; Williams, 2003; Kessler et al., 1999; Harrell, 2000). Kessler, Mickelson, and Williams (1999) purport that “discrimination is among the most important of all the stressful experiences that have been implicated as causes of mental health problems” (p. 224). Therefore, racism’s psychological impact as a stressor is identified as an important factor in understanding mental health and the physical health status of People of Color.

Furthermore, the psychological impact of racism-related stress may be understood differently depending on one’s racial group membership. Comas-Diaz and Green (1994) supports the notion that the way experiences with racism affect each racial minority group manifest in specific ways and are unique to each group including Asian Americans (Wu, 2001; Liang, Li, & Kim, 2004; Carter, Forsyth, Mazulla & Williams, 2005; Pyke & Dang, 2003; Noh, Beiser, Kaspar, Hou, Rummens, 1999; Mio & Awakuni, 2000; Gee, 2002).

While there is a compelling amount of evidence that racism-related stress is associated with psychological distress for Black Americans, there is less universal evidence for other racial groups. In fact, one may conclude that other groups of color do not go through the harmful effects of racism as much as Blacks given the history of slavery in this country. Another belief, however, asserts that the current models of racism-related stress do not effectively capture all People of Color’s experiences and, therefore, limit what we know about stress and psychological health.

While there have been significant contributions to psychological literature in regard to racism-related stress and Black Americans, less is known about Asian Americans. This study explored the relationship between racism-related stress and psychological distress for Asian Americans. The socio-political and historical processes of integration of Asian Americans into

the United States are dynamically different than other People of Color. Consequently, their experience with racism is distinct from other racial groups and must be understood in a larger context to better capture Asian Americans' experiences with racism.

Much of the racism directed toward Asian Americans today stems from stereotypes that Asians are the "model minority" and the perception that all Asian Americans are immigrants and non-native Americans. White America first identified Asian Americans as the model minority as a way to move away from the "yellow peril," or the Western-perceived threat of Asians. By recognizing that some Asian Americans have gained access to mainstream America through the establishment of businesses and high educational attainment, Asian Americans are likened to Whites in America, resulting in the perception that Asian Americans have "made it" in American society.

However, these stereotypes have shielded people from recognizing the way that racism continues to exist in the lives of Asian Americans. The seemingly positive model minority stereotype "disguises the serious social and economic problems that continue to confront some elements of the Asian American population" (Marger, 2005, p. 371). More specifically, the second wave of settlers, particularly Southeast Asian refugees (Hmong, Laotian, Vietnamese) remain poor, uneducated, and relatively unsuccessful in penetrating dominant society. Because Southeast Asians are racially part of the collective Asian American community, they suffer from the "positive" stereotype in more intense ways; they may identify as Asian American, but their actual experience of assimilating and succeeding in American society is difficult at best.

While the model minority label is ostensibly complimentary, it constrains and creates intense social and psychological pressures on, and stress for, Asian Americans striving to live up to unrealistic and racially-stereotyped expectations (Chou & Feagin, 2008; Yeh, Arora, & Wu,



2005; Pang, 1991; Marger, 2005; Sue & Zane, 1985; Tran & Birman, 2010). The perception that some Asian Americans have become more accepted also creates division and tension between Asian Americans and other People of Color (Alvarez, 2008; Lee, 1998; Lee, Wong & Alvarez, 2008; Marger, 2005; Mio, Nagata, Tsai, & Tewarti, 2006) and contributes to a backlash against Asian Americans as a racial group. This backlash fuels ongoing manifestations of racism apparent in instances like the influx of immigrants, California propositions (e.g., Proposition 187 and Proposition 209) and peer discrimination in schools.

This myth perpetuates the misconception that Asian Americans do not experience racism or experience less oppression and discrimination than other groups of color. Because of the perceived success of all Asian Americans academically, economically, socially and institutionally, the assumption remains that Asian Americans function well in American society, while in reality the myth masks psychological needs (Tran & Birman, 2010). Thus, despite the surge of research supporting the negative impact of racism and racial discrimination on the psychological and emotional well-being of Asian Americans (Gee, Spencer, Chen, Yip & Takeuchi, 2007; Kuo, 1995; Lam, 2007; Alvarez & Juang, 2010) the societal image of Asian Americans as the “model minority” confuses and even counteracts the evidence of mental health needs for Asian Americans.

Additionally, despite a long history of residence in the United States, the perception continues that Asian Americans are foreign to this land. This “perpetual foreigner” stereotype (Tuan, 1998) depicts Asian Americans as inassimilable foreigners (Pyke & Dang, 2003), which has triggered harmful stereotypes and prejudices creating social barriers to full integration into American society. Some of the stereotypes have led to anti-Asian vandalism, intimidation and threats, incidents involving bodily harm, harassment and racial slurs. In fact, explicit racist acts

have often intensified in relation to world events, like the attacks of September 11, 2001, which resulted in a surge of incidents related to religious persecution against South Asians (Asian Indians) who were treated on the basis of stereotypes and assumed to be “terrorists” (National Asian Pacific American Legal Consortium, 2003). In 2002, the most commonly reported hate crime offense directed at Asian Americans was assault and battery, which comprised 29% of the cases (NAPALC, 2003). Thus, Americans continue to voice negative sentiments about Asian Americans providing a continued need to explore the effects of racism for Asian Americans and its relation to mental health.

Coping with racism plays a critical role in the relationship between the experience and appraisal of a threatening event and subsequent feelings of event-related stress and psychopathology (Lazarus, 1990). According to Lazarus (1990), coping mediates the relationship between stressor and the experience of stress whereby coping is a mechanism by which individuals understand, reframe or react to the experience of an event. The way an individual copes with that event will, in turn, determine whether he or she is stressed by the experience. Thus, there is a need to examine a theoretically grounded model for ways that coping mediates the effects of a racially-stressful event. However, because Lazarus & Folkman use coping styles from an individualistic perspective, their “problem-focused” vs. “emotion-focused” ways of coping prove problematic with a population like Asian Americans who function from a different worldview.

While the meditational role of coping for a variety of relationships has been examined in a wide area of research, the way Asian Americans use coping strategies to manage stress, particularly racism-related coping, has not been adequately captured in empirical studies. Due to distinct differences in racial and cultural orientation, Asian Americans have been characterized

in the coping literature as avoidant and indirect in their coping methods (Chang, 1996), which is maladaptive (Lazarus & Folkman, 1984). However, Yeh, Arora and Wu (2006) argue that Asian Americans may employ culturally valid forms of coping grounded in collectivistic intentions. For instance, in collectivistic culture, the focus of attention is on the “other” vs. oneself; as such, Asian Americans tend to forbear one’s problems in order to minimize or avoid interpersonal conflict (Yeh, Hunter, Madan-Bahel, Chiang, & Arora, 2004; Yeh et al., 2005). Similarly, Asian Americans may lean more towards intracultural coping methods where support networks of racially similar individuals are utilized. In considering culturally specific coping practices, sources, and attitudes, Yeh, Inman, Kim and Okubo (2006) addresses the ways of coping of persons with an interdependent self-construal. In this way, Asian American’s larger connectedness with one another as a way of coping with racism-related stress may actually better explain overlooked experiences with racism.

Another challenge of empirical findings is that in some studies, relationships between racism-related stress, discrimination and mental health outcomes have been moderate to weak for Asian Americans. These findings raise the possibility of moderating variables. In other words, because there is an unexpectedly weak or inconsistent relationship between these predictors and outcomes, perhaps racism-related stress, for instance only results in depression for some. Among the variables that were hypothesized to moderate the relationship or serve as a protective factor against racism-related stress, racial identity was a factor in creating variability in mental health outcomes.

The relationship of racial identity and perceived racism has been of growing interest for scholars and researchers (Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003; Liang et al., 2006). Racial Identity Theory (Helms, 1995) describes how an individual psychologically

understands his or her race and culture, which may inform the effects of racism. Researchers have begun to explore the way that racial identity statuses relate to race-related stress and mental health for Asian Americans (Chen, LePhuoc, Guzman, Rude & Dodd, 2006). However, the relationship between racism-related stress and mental health outcomes remains unexamined.

Despite the fact that Asian Americans come from over 25 ethnic groups, most Americans do not necessarily make the distinction between ethnicities. In this way, one's racial identity status attitudes are particularly salient when addressing one's experience with racism and, as such, racism-related stress experienced by Asian Americans is informed by individuals' racial identity status attitudes. Furthermore, racial identity attitudes might also provide more information into the variability in stress reactions that exist among Asian Americans.

The present study sought to address the gaps in the existing literature by examining the mediating role of collectivistic coping and moderating role of racial identity status attitudes in the relationship between racism-related stress and psychological distress for Asian Americans.

## Chapter II

### **Literature Review**

Despite research revealing that Asians Americans' experience with racism negatively affects psychological functioning, the perception of Asian Americans is as a "model minority." The notion that Asian Americans are a racial group that has successfully assimilated into mainstream America masks nuanced experiences with racism that can be psychologically stressful. In order to place the study of racism-related stress, coping, racial identity and psychological distress among Asian Americans in context and to provide a theoretical framework for the analysis of the research questions, Chapter Two will review relevant research and theoretical literature. This review begins with theoretical models of stress and coping, which have formed the conceptual foundation for models of racism as a stressor and studies of discrimination and mental health. It continues with an examination of Asian Americans' experiences with racism-related mental health outcomes. Following is a review of the research on coping as a mediator and racial identity as moderator of the relationship between racism-related stress and psychological distress.

### **Psychological Stress and Coping**

Extensive research on stress exists in a number of domains, including behavioral medicine, health psychology and clinical intervention, and results in a number of definitions, conceptualizations and measurement strategies (Kessler, 1997; Taylor, 1999). Three main conceptualizations of stress exist: in the fields of biology and medicine, stress appears as a response to stimuli (Selye, 1956); in psychology, stress exists in and of itself as a stimulus (White, 1959), and more recently, in psychology, stress as a transaction model between a person

and his or her environment (Lazarus & Folkman, 1984). Stress stimuli are considered as events impinging on the person and can arise within the person or in the environment. Often, stressors include environmental events outside of one's control (i.e., natural disasters, imprisonment, discrimination) and other life events (i.e., relocation, change of career, marriage) (Selye, 1956). These environmental events and life events, whether negative or positive, require psychological adjustment on the part of the individual (Holmes & Rahe, 1967). Although different life events have different demands on a particular individual, both positive and negative events contain stress. However, some research using the stress as a stimulus model found relationships between life events and illness inconsistent across studies (Kessler, 1997; Miller, 2007; Lyon, 2000).

Selye (1956) defines stress as a set of universal physiological reactions that occur in response to harmful stimuli in the environment, or stressors. He argues that the physiological response to stressors remains consistent with all stressors and when stress is endured, illness will result. Taylor (1999) examines psychobiological reactions (i.e., changes in heart rate and blood pressure), showing that stress may produce distress and disease. Response theories, which have been prevalent in health care, focus on the "state of stress" that results from environmental demands with little attention to the demand itself or its evaluation. Additionally, a criticism of Selye's theory is that it does not expand beyond automatic physiological responses to include psychological stress, and neglects the role of varying subjective perceptions of whether a given situation is stressful (Lyon, 2000). Furthermore, research on stress tends to indicate that physiological stress patterns differed depending on the type of stressor, thus suggesting that stress might be stimulus-specific (Lyon, 2000; Lazarus & Folkman, 1984). For example, in the case of increased heart rate from a jog one individual may be psychologically stressed by the jog,

while another might feel relaxed. Therefore, without reference to the stimulus, the response itself is not reliable.

Lazarus and Folkman (1984) argue that all stimulus-response approaches are circular and fail to identify which factors of the stimulus produce a particular stress response, and likewise, which factors about the response indicate a particular stressor. In a critique of previous models of stress, Lazarus and Folkman (1984) posit that stress is not so much the event or a reaction itself, but the result of a transaction between a person and his or her environment. Moreover, they argue that depicting stress merely as an external event ignores individual differences in the perception or appraisal of stress. Once patterns of responses are taken into account, stimulus situations derive meaning and have potency because of the relationship between a person and his or her environment. Consequently, they propose a *relational* model of stress among systems, stressing the importance of the person and environment interaction. Their widely cited definition of stress is as follows:

Psychological stress is a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being (p. 19)

In effect, psychological stress is a reaction to personal harms and threats of various kinds that emerge out of the person-environment relationship. The stress reaction results from an imbalance between the requirements of the environmental situation and one's ability to cope with it.

Lazarus and Folkman's (1984) model of stress and coping is one of the more extensively used frameworks to study the effects of stress in psychology. They explain that psychological stress occurs when an individual accesses personal or social resources, which prove insufficient

to respond to an event. The event is then appraised as harmful and the individual has a stress response to the experience because he or she appraises the event as harmful. The concept of appraisal addresses cognitive processes that mediate the relationship between stressful events and one's actions. While the stress as a stimulus model holds that responses to stressors are universal, evidence suggests that appraisal-related processes shape the individual reaction to encounters. Lazarus and Folkman (1984) argue that there are variations in people's responses to stressors and that the appraisal of an event as stressful is more crucial in determining the intensity and duration of the stress response or outcome than is the specific event itself. Therefore, the core of the transaction between person and environment lies in how one appraises an encounter.

## **Appraisal**

While prior researchers utilize the concept of appraisal (i.e., Grinker & Spiegel, 1945; Janis & Mann; 1977; Arnold, 1960, 1970), Lazarus and Folkman's concept of cognitive appraisal refers to "the evaluative cognitive processes that intervene between the encounter and the reaction" (p. 52) which may not necessarily be conscious. They argue that an emotional response is "specific to appraised meanings and differentiated as to the quality as well as the intensity" (p. 52), and plays a significant role in stress reactions. An appraisal is the process that mediates, on one hand, between the demands, constraints and resources of the environment and, on the other, the goal and personal beliefs of the individual (Lazarus, 1993). In other words, the meaning of an event to the person shapes the emotional and behavioral response. This evaluative cognitive process intervenes between the encounter and the reaction where the person evaluates the significance of what is happening for his or her well-being.



They explain that encounters are followed by a primary and secondary appraisal. During an encounter, the primary appraisal is the assessment of the encounter as irrelevant, benign or stressful. When a person feels his or her adaptive resources are met or exceeded, he or she experiences stress that inflicts harm/loss, threat, or challenge. Harm/loss refers to the damage the person has already sustained while threat refers to anticipated harms or losses. The cognitive component of threat focuses on the impending harm and is characterized by negative affect and negative emotions such as fear, anxiety, and anger (Lazarus & Folkman, 1984). Challenge appraisals focus on the potential for gain or growth inherent in an encounter.

Once an individual assesses an encounter as stressful, the secondary appraisal is a judgment concerning possible action. The individual must evaluate whether their coping strategy will be successful and whether they are actually able to apply the coping strategy given available resources and other contextual demands and constraints. For instance, when faced with an encounter that an individual deems harmful, a person who has the resources to establish a coping strategy may appraise the event as a challenge, while another person, faced with an identical situation and uncertain about his or her ability to cope given resources, may appraise the encounter as a threat.

At the simplest level, appraisal is the subjective assessment of the stressful event, that is, that individual's definition of the stressor as an overwhelming vs. manageable challenge. Aldwin (1994) offers an argument that the centrality of the appraisal process may apply more to social sources of stress than physical. Most people will unconsciously and reflexively react when faced with physical danger (i.e., moving out of the way of a speeding car). On the other hand, subtle stressors, such as racial aggressions, may have negative effects without the individual being aware of the source. Nonetheless, how an individual interprets a single stressful situation

depends on coping strategies to address the stressor. In addition, it is unusual for events appraised as stressful by the individual, to be dependable, adding to the difficulty in predicting emotional reactions without regard to coping (Lazarus and Folkman, 1984).

## **Coping**

Appraisal covers those changes that result from an individual's reflection on an event and his or her emotional reactions. However, coping is another key mediating variable that Lazarus describes as intervening between the environmental encounter and the response. Previous researchers define coping as a multidimensional process that involves conscious cognitive, behavioral and emotional efforts to deal with internal and or external demands of stressful events (Carver, Scheier & Weintaub, 1989; Lazarus & Folkman, 1984; Pearlin & Schooler, 1978). Coping remains the stabilizing factor that can help individuals maintain psychological adaptation during stressful periods (Lazarus & Folkman, 1984; Billings and Moos, 1981).

Each process of coping has different implications for emotion, particularly with respect to the regulation of emotion (i.e., denial, distracting oneself and redefinition of the situation) (Lazarus & Folkman, 1984). Because psychological stress defines an unfavorable person-environment relationship, its essence is process and change, whereby coping strategies function to alter or distort the initial appraisal in such a way as to change the emotion being experienced. Whereas traditional approaches to coping emphasize styles or stable properties of personality, Lazarus and Folkman (1984) emphasize coping as a process in which a person makes ongoing efforts to manage specific demands appraised as overwhelming. Thus, if responding with cheerfulness is a way to manage depressive affect, then emotion alone does not explain the lack of depression; coping must also be taken into account. In this way, the individual acts as an agent

in shaping his or her psychological world and utilizing resources to manage or modify the stressors (Kessler et al., 1985).

Two strategies of coping emerge in psychological literature; problem-focused/emotion-focused coping and approach/avoidance-oriented coping, or engagement vs. disengagement, and primary vs. secondary control coping (i.e., Lazarus & Folkman, 1984; Scheier et al., 1986; Seiffge-Krenke, 1993; Folkman and Moskowitz, 2004). Most strategies of coping resulted from grouping coping items into categories and testing these using either exploratory or confirmatory factor analysis, or theoretically-based methods in which raters sort items and confirm created categories and establish inter rater reliability (Skinner, Edge, Altman, and Sherwood, 2003).

The classification of coping as problem-focused and emotion-focused coping prevails in studies that focus on the impact of racial stressors on mental health. Problem-focused coping targets active (vs. passive) problem solving to adjust or diminish the source of stress. This style of coping includes strategies designed to lessen the impact of the stressor either by altering the stressor or increasing coping resources. Thus, a problem-focused strategy may involve confronting the perpetrator of a racist act or offense or perhaps reporting the incident to authorities. On the other hand, emotion-focused coping comprises strategies to reduce or manage the distressing emotions associated with the stressor, such as distancing, accepting responsibility, escape/avoidance and confrontive coping (Yeh et al., 2006). This type of coping may involve seeking support from others to release emotions and seek advice. Although most stressful situations demand both types of coping, problem-focused coping predominates when individuals feel a need to act, while emotion-focused coping is more prevalent when people feel endurance is necessary to face the stressor (Folkman & Lazarus, 1984).

While both types of coping serve to meet different needs, the relationship between action-oriented coping and positive psychological outcomes prevails. On the other hand, avoidance and emotion-focused coping were associated with decreased mental health (Lazarus & Folkman, 1984; Seiffge-Krenke, 1993; Holahan, Valentiner, & Moos, 1995; Austenfeld & Standon, 2004; Folkman & Moskowitz, 2004). However, this prevalent dichotomous categorization of coping strategies does not adequately capture the full complexity of cultural variations of coping (Chun, Moos & Cronkite, 2005). While both types of coping appear in psychological literature, a number of scholars take issue with the operationalization of emotion-focused coping, arguing that emotion-focused subscales often include items that indicate avoidance of emotions (i.e., “I try not to think about it” or “I say to myself this isn’t real”) and acknowledgment of emotions (i.e., “I get upset and am really aware of it” or “I let my feelings out”), with a high possibility of an inverse correlation (Folkman & Moskowitz, 2004).

Recently, coping researchers have been criticized because the foundation of their conceptualization and subsequent findings are based on White American participants, using theories derived from an individualistic cultural perspective (Bjorck, Cuthbertson, Thurman, & Lee, 2001; Dunahoo, Hobfoll, Monnier, Hulsizer, & Johnson, 1998; Chang, Tugade, Asakawa, 2005). Thus, one of the most important neglected aspects in stress and coping research is racial-cultural saliency. The prevailing assumption in past research on stress and coping is that individuals cope in order to address their *own* needs and reduce their *own* psychological distress (Chun et al., 2005). To prioritize and focus on one’s own needs is based on individualistic cultures in which people cope with problems and stressors by using approach coping, taking direct action, confronting others and speaking up in order to defend oneself (Yeh et al., 2006). This notion is problematic, however, because it stems from the assumption that approach coping

is the only coping method that is constructive and adaptive (Chun et al., 2005). However, there are other types of coping, which are more applicable to the cultural values of communities of Color.

### **Racial-Cultural Aspects of Stress and Coping**

Collectivistic cultures, on the other hand, are noted to use avoidance coping, embracing harmony with others to negotiate social situations and change oneself rather than change the situation (Cross, 1995; Yeh et al., 2006; Yeh & Wong, 2008). In a collectivistic culture, the immediate reduction of distress may not be the desired outcome for the individual (but rather for the group) or an indication that one has adequately coped with stress (Chun et al., 2005). Again, the assumption from research is that avoidance (covert and passive) coping is maladaptive because it connotes lack of motivation and effort (Chung et al., 2005).

For instance, Asian Americans have strong differences in cultural orientation from White American culture, valuing a fundamental relatedness with others (Markus & Kitiayama, 1991) and emphasizing group cohesion, family privacy and social harmony in interpersonal relationships (Yeh & Inman 2005; Yeh & Wang, 2000; Yeh et al., 2005; Hong and Ham, 2001) over consulting mental health professionals. For instance, Yeh and Wang (2000) found that Asian American college students were more inclined to endorse coping practices that connect them socially with others than those that incorporate professional mental health practitioners. Similarly, Yeh et al. (2006) found that Asian Americans who lost a family member in the World Trade Center attacks coped by using family coping. Culturally, confrontation and open expression of conflict is strongly discouraged among Asian Americans. While later generations infused with more mainstream American cultural values are more comfortable with expression of

conflict, the cultural value still pervades. However, these differences in cultural orientation are not accounted for in coping literature; instead, the literature characterizes Asian Americans as avoidant and indirect in their coping methods (Chang, 1996). On the contrary, this finding can be differently interpreted and reframed, given that Asian Americans may employ culturally-valid forms of coping, such as family support, forbearance and fatalism that are grounded in collectivistic purposes (Yeh et al., 2006; Chun et al., 2006).

Chang (1996) conducted a study examining the cultural differences, coping and adjustment of 45 Asian American and 49 Caucasian American college students using the Coping Strategies Inventory; Satisfaction with Life Scale (SWLS) and the Beck Depression Inventory (BDI). Eight coping strategies measured by different CSI scales included: Problem Solving; Cognitive Restructuring; Express Emotions and Social Support, which measure engaged and more adaptive coping efforts; and Problem Avoidance; Wishful Thinking; Self-Criticism and Social Withdrawal, which represent disengaged and more maladaptive coping strategies. By comparing mean differences of the two ethnic groups on each of the CSI coping strategies, the findings note that Asian and Caucasian Americans have differing notions of self (interdependent vs. independent), each with different ways of thinking, feeling and acting. While the two groups are generally similar on their reported use of specific coping strategies when dealing with a stressful encounter, there are two notable exceptions; Asian Americans as compared to White Americans reported more Problem Avoidance and Social Withdrawal, suggesting more maladaptive coping strategies for Asian Americans. Chang, however, reasons what “works” for Asian Americans when compared to White Americans is not necessarily less effective. By simply examining the mean differences, very little is revealed about how these coping strategies relate to other important variables.

When examining the correlations between the eight CSI scale scores and the scores on the SWLS and the BDI, the results show that despite the lack of a mean difference on Self-Criticism, the use of this coping strategy was related to significantly lower life satisfaction and depressive symptoms for White Americans, but only to greater depressive symptoms for Asian Americans. Similarly, Asian Americans, in comparison to White Americans had higher mean scores on Problem Avoidance. However, these scores were not related reliably to lower life satisfaction or greater depressive symptoms. Thus, in spite of notions that Asian Americans endorse maladaptive coping strategies, Chang (1996) shows that Asian Americans' heightened use of "disengaged" coping strategies does not signify greater maladjustment.

Cultural value difference can also explain the inefficacy of the coping strategies that Asian Americans employ. Individuals from collectivistic cultures are socialized to cope in different ways when compared to individuals from individualistic cultures (Yeh et al., 2005). For example, by Western interpretations, coping that takes into consideration coping methods used in collectivistic cultures requires some amount of self-sacrifice for the greater good of the collective, resulting in an immediate increase in distress for the individual (for eventual decrease of distress for the collective). This notion may contribute to frequent findings that Asians and Asian Americans tend to use ineffective coping strategies (Bjorck et al., 2001; Chang, 1996; Lee and Liu, 2001).

However, despite findings that have demonstrated that collectivistic and individualistic coping are distinct coping strategies, measures focusing exclusively on collectivistic coping practices are scant. While the Africultural Coping Systems Inventory (Utsey et al., 2000) takes collectivistic coping into account when measuring the culture-specific coping strategies, the inventory was developed with a focus on African Americans.

Heppner, Heppner, Lee, Wang, Park and Wang (2006) developed the Collectivistic Coping Styles Inventory (CCS-RD). The measure is a situation-specific collectivistic coping inventory initially developed on Taiwanese college students. The items were developed based on Asian cultural values, primary control (i.e., control through direct and active influences) and secondary control (i.e., control through accommodating and reframing existing realities), and problem resolution. The 30-item scale is conceptualized by five distinct subscales including Acceptance, Reframing and Striving; Family Support; Religious/Spirituality; Avoidance and Detachment; and Private Emotional Outlets, which are conceptualized separately.

Yeh, Arora, and Wu (2006) developed a foundation for a new general theoretical model of collectivistic coping that is more generalized to collectivistic cultures (not one ethnic or racial group in specific, though tested mainly with Asians and Asian Americans). The Collectivistic Coping Scale includes the following subscales: *family support* and *respect for authority figures* - addressing problems within the family system, so as not to bring guilt and shame on the family (Markus & Kitayama, 1991; Yeh and Wang, 2000; Sue, 1994); *forbearance* - keeping problems to oneself, willingness to sacrifice, and honorably enduring in the face of adversity (Marsella, 1993); *social activity* - using social supports such as religious leaders, student organizations and church groups to deal with daily stressors vs. talking with professional counselors; *intracultural coping* and *relational universality* - connecting with other racially similar individuals and support networks who can identify and empathize with their struggles; and *fatalism* - accepting externally situated problems beyond one's power of control to change. Yeh, Chang, Arora, Kim and Xin (2008) took the theoretical model of collectivistic coping and introduced the Collectivistic Coping Scale (CCS), which is the first measure to focus exclusively on collectivistic coping practices. While the Collectivistic Coping Scale has been presented



theoretically (Yeh, et al., 2006; Yeh & Kwong, 2008) and qualitatively (Yeh, et al., 2006), it has yet to be tested in qualitative studies.

While more culturally-specific coping strategies are being developed and tested, within psychological literature, the stress and coping process operates as a relevant framework for conceptualizing and understanding psychological functioning of historically oppressed racial/ethnic groups. Slavin et al. (1991) expands the “standard” stress model of Lazarus and Folkman (1984) by considering the racial-cultural and social embeddedness of a Person of Color. Thus, the model presented by Slavin et al. (1991) has considerable utility in understanding the stress and coping response in People of Color, particularly because it recognizes racism as a core and central source of stress and identifies how one’s racial status may influence the stress process. They argue that membership in a particular racial or cultural group can determine both the types of stressors one is exposed to, as well as the frequency with which one faces stressors. They contend that racism operates as a race-related stressor for many minorities who value their racial-cultural heritage and culture. Therefore, racism manifests as the “context” by which Lazarus and Folkman (1984) explain influences upon? the stress process in the transaction between person and environment. In other words, depending upon the context, differing components may assume more or less significance. For people of color, racism as a context can be oppressive and can have poignant psychological outcomes.

### **Racism**

Racism is a social construction that began to receive scholarly attention in the early 1970s in social psychology and is generally defined as:

“The systematic subordination of members of target racial groups who have relatively little social power in the United States (Blacks, Latino/as, Native Americans, and

Asians), by the members of the agent racial group who have relatively more social power (Whites). This subordination is supported by the actions of individuals, cultural norms and values, and the institutional structures and practices of society” (p. 88-89; Adams, Bell, & Griffin, 1997)

Racism is complex; it occurs at various levels including individual (i.e., racial stereotyping by an individual), institutional (i.e., discriminatory laws), and cultural (i.e., media depictions) (Jones, 1997). Individual racism involves the personal attitudes, beliefs, and behaviors designed to convince oneself of the superiority of one’s race/ethnicity over other races/ethnicities.

Institutional racism involves the social policies, laws and regulations whose purpose it is to maintain the economic and social advantage of the racial/ethnic group in power. Cultural racism involves societal beliefs and customs that promote the assumption that the products of the dominant culture (i.e., language, traditions, appearance, values) are superior to those of other cultures (Jones, 1997).

While the United States has made distinct strides – including the historical election of the nation’s first Black president - institutional, societal and individual racism continues to occur. Racism exists in both overt and covert manifestations, though in contemporary America, more subtle forms of racism prevail. While blatant racist acts still transpire, instances of racism have become couched in subtler, yet no less painful translations (Carter 2007; Sue, Capodilupo, Torino, Bucceri, Holder, Nadal, & Esquilin, 2007; Sue 2006). The more *modern* racism (McConahay, 1986) or *averse racism* (Doviodio, Gaertner, Kawakami, & Hodson, 2002) functions as microaggressions (Sue et al., 2007), or “brief, everyday exchanges that send denigrating messages to people of color because they belong to a racial minority group” (p. 273) and can be found in everyday experiences (Essed, 1991). The new forms of racism and racial discrimination, which occur via modern racism or averse racism are “difficult to identify,

quantify, and rectify because of their subtle, nebulous and unnamed nature” (Sue et al., 2007. p. 274). Racism also can be intentional or unintentional, and perpetrators of racism often unconsciously create racially-hostile environments for People of Color (Sue et al., 2007).

Regardless of the intention, the impact of racism, whether overt or covert, can have notable effects on the mental health of People of Color. In fact, subtle racism, which is vague and unclear and may lead to rumination, can be more psychologically and physiologically-aversive and difficult to cope with than clear and blatant experiences of racism (Harrell, 2000; Operario and Fiske, 2001; Ruggiero and Taylor, 1995). The subtle nature of current-day discrimination may, therefore, be a stronger risk factor for depression for People of Color, causing chronic or acute stress. Empirical evidence for racism as a stressor is presented in the following section.

### **Racism as a Stressor**

Stressful events due to race typically result from discrimination in the forms of blocked opportunities, cultural conflict and social isolation (Clark et al., 1999; Kessler et al., 1999; Yoder, Whitbeck, Hoyt, & LaFromboise, 2006). In fact, Kessler, Mickelson & Williams (1999) found the relationship between discrimination and mental health similar to that of other stressors; “Discrimination is among the most important of all the stressful experiences that have been implicated as causes of mental health problems” (Kessler et al., 1999, p. 224). The development of several measures to assess racism-related stress enhances the understanding of the manner in which racism-related life experiences impact psychological functioning (Harrell, 2000; Landrine & Klonoff, 1996; McNeilly et al., 1996; Utsey & Ponterotto, 1998; Clark et al., 1999).

Clark, Anderson, Clark, and Williams (1999) propose a biopsychosocial model where the perception of racism evokes psychosocial and physiological stress responses and, in doing so,

has a negative effect on one's access to resources, opportunity for improvement of social status and psychological well-being. A central construct in their model focuses on an individual's coping mechanisms (i.e., strategies, resources, cognitive ability and personality traits), which is reflective of the appraisal aspect of the Lazarus and Folkman (1984) model. Specifically, Clark et al. (1999) assert that for African Americans perceived racism is a significant stressor with psychological consequences including anger, depression and helplessness. In such models, racism is not limited to major incidents of racial bias but extends to ongoing, everyday indignities and irritations (Essed, 1991). Thus, exposure to everyday minority status stress may negatively affect the health of racial and ethnic minority populations (Williams et al., 1997).

Harrell (2000) begins to bridge this gap of racism as a stressor and argues that while psychological stress includes general life events that occur across all sociodemographic groups (e.g., death of a loved one, natural disaster), it also is necessary to consider experiences that are related to the person-environment transitions involving race and culture. Her definition of race-related stress is: "The race-related transactions between individuals or groups and their environment that emerge from the dynamics of racism, and that tax or exceed existing individual and collective resources or threaten well-being" (p. 45). Harrell's multidimensional model of racism-related stress proposes that negative psychological and physiological outcomes result when an individual is unable to respond to direct or indirect experiences of racist events. In other words, racism is one form of a chronic stressor that affects the well-being of racial minorities through racism-related stress and other mediators. She identifies six types of race-related stressors; (a) racism-related life events (e.g., significant life experiences that are relatively time limited); (b) vicarious racism experiences (e.g., experiences through observation and report); (c) daily racism microstressors (e.g., subtle, innocuous, preconscious or unconscious degradations

and put-downs); (e) chronic-contextual stress (e.g., impact of the social structure, political dynamics, and institutional racism on social-role demands); (e) collective experience of racism (e.g., cultural-symbolic and sociopolitical manifestations of racism observed and felt by members); and (f) transgenerational transmission of group traumas (e.g., internment of Japanese Americans during World War II). Both Clark et al. (1999) and Harrell (2000) proposed coping as a mediator, of racism-related stress and its outcomes, as consistent with Lazarus & Folkman's (1984) stress and coping model.

Researchers use a variety of methods and measures of racism assessing its effects from the perspective of different timeframes (i.e., one year, lifetime, etc.) and employ an assortment of outcome variables to understand mental health impact with both community and student samples at various stages of life. However, racism-related stress measurements have been primarily focused on Black populations. Empirical studies examining racism-related stress (Franklin-Jackson & Carter 2007; Peitersen and Carter; 2007; Scott, 2003; Neville, Heppner & Wang; 1997; Williams, Yu, James, Jackson & Anderson, 1997), report both significant and non-significant results when assessing the specific contribution of racism-related stress on psychological well-being among Black Americans.

The growing body of literature provides a foundation for the conceptualization of racism as a stressor for people of color. However, each racial minority group manifests experiences with racism in specific ways (Comas-Diaz & Green, 1994; Liang, Li & Kim, 2004). Although the instruments of racism-related stress represent significant contributions to the research literature, empirical investigations examining racism-related stress in Asian Americans have just begun.

Two measures assess racism-related experiences among Asian Americans. The first is the Race Related Stressor Scale for Asian American Vietnam Veterans (Loo, Fairbank, Scurfield,

Ruch, King, Adams & Chemtob, 2001). In his measure, Loo et al. report that racism-related stress is a stronger predictor of PTSD symptoms among Asian American Vietnam veterans than that accounted for by combat exposure. However, the RRSS is a measure of exposure to race-related stressors in the military and war zone is designed for use with Vietnam veterans, not with the general Asian American public.

The second measure, Liang, Li and Kim's (2004) Asian American Racism-Related Stress Inventory (AARRSI) is an adaptation of Utsey and Ponterotto's (1996) Index of Racism Related Stress. The AARRSI assesses the level of stress experienced by Asian Americans as a result of experiences of racism. An exploratory factor analysis yielded three subscales: (a) Socio-Historical Racism, including experiences of racism related to collective experiences; (b) General Racism, reflecting daily experiences of racism and stereotypes; and (c) Perpetual Foreigner Racism, representing the experience of being seen and treated as foreigners and not "American."

Asian American Racism Related Stress has been examined in relation to perceived discrimination, coping, racial identity and self-esteem. However, there remains a gap in the literature in the exploration of the way in which racism-related stress relates to psychological distress for Asian Americans. Nevertheless, it is crucial to understand first, historically and contextually how Asian Americans, as a racial group have settled and assimilated into American society, yet continue to experience racism and racism-related stress.

### **Racism and Asian Americans**

Asian Americans' socio-political and historical processes of integration into the United States are dynamically different from that of African Americans as well as other People of Color. Consequently, their experience with racism is distinct from other racial groups and must be understood in a larger context in regard to socio-historical settlement, perceptions and the internalization of these messages. The experience for Asians in the United States can be divided into two divergent parts. The first wave of immigration began in the 1850s with the Chinese working mainly as miners, manufacture workers, and laborers. The Japanese followed, and in much smaller numbers, Koreans and Filipinos. The first Asian immigrants were mostly “unskilled laborers, recruited for construction or agricultural work” (Marger, 2005, p. 343). The second wave of immigration was not until 1965 and the amendment of immigration laws, which had prohibited Asians from entering the United States. The second wave of immigrants, primarily Koreans and Asian Indians, or South Asians, was distinctly different than the first. These immigrants were more upper class, better educated and occupationally better skilled (Young & Takeuchi, 1998; Marger, 2005).

The notion that Asian Americans are the “model minority”, near the top of the stratification system in regards to income, education and occupation, masks the striking differences of these two waves of immigration. Japanese and Asian Indians, for instance, rank among the highest income earners in the United States, comprising highly educated and highly skilled workers. Assimilation for these Asian Americans creates a larger dynamic within Asian Americans as a minority group. On one hand those who are well-educated and maintain prestigious jobs become upwardly mobile, both culturally and structurally assimilating into the White American mainstream (Marger, 2005). On the other hand, Vietnamese and other Southeast

Asian groups (i.e., Hmong, Laotian, and Cambodian) who primarily come as political refugees are among the most impoverished groups in the United States. These groups prove less affluent and educated, preserve traditional practices and have difficulty integrating into the mainstream. Therefore, the differences among various Asian groups create a distinct and crucial dichotomy in their ability to assimilate.

Thus, while the “model minority” myth reflects an accurate depiction of some Asian ethnic groups, it overshadows serious social, economic, and psychological needs encountered by large segments of the Asian American population (Sue, 1994). Regardless of settlement pattern, Asian Americans’ experiences with racism began when they first immigrated to the United States in the 1850s, which produced “one of the most hostile movements in American ethnic history” (Marger, 2005, p. 343). While expressions of prejudice and acts of discrimination against Asian Americans in recent years do not compare to the pervasive and violent forms of racism that began with the first wave of immigrants, discrimination and prejudice still affect the daily lives of Asian Americans. The following sections will explore evidence of discrimination toward Asian Americans using Liang, Li and Kim’s (2004) assessment of racism-related stress, including a specific form of racism encountered by Asian Americans called “perpetual foreigner” racism, as well as socio-historical racism and general racism.

### **Perpetual Foreigner Racism**

Perpetual foreigner racism signifies the unique experience of being seen and treated as a foreigner and the assumption by White America that Asian Americans are unable to assimilate into dominant culture (Liang, Li, & Kim, 2004; Tuan, 1998; Wu, 2002). Such a perception has triggered harmful prejudices creating social barriers to full integration into American society.



Whether Asians are first or fourth generation Americans, they can face “distrust, hostility and derision for their assumed disloyalty and lack of assimilation to the White mainstream” (Pyke & Dang, 2003, p. 150). For many people, the perception of Asian Americans as foreigners who represent an economic and social threat to the White majority fuels anti-Asian sentiments and violence.

The beating and death of Chinese American Vincent Chin on June 19, 1982 exemplifies one of the most heinous hate crimes toward an Asian American (Takaki, 1989; Young & Takeuchi, 1998). At the time, Chin, a Chinese American, was at a Detroit bar with friends celebrating his upcoming wedding. Two White automobile factory workers approached Chin, mistaking him for a “Jap,” and blamed him for the loss of jobs in the automobile industry. Chin was subsequently chased outside and fatally? beaten with a baseball bat (Young & Takeuchi, 1998). A large number of contemporary examples of individual racism have occurred in school settings. On September 15, 2005, at the University of Michigan, a White student shouted ethnic slurs, such as “go home,” and urinated off his balcony onto two Asian American students walking by his building. While this latter example describes a less violent racist experience, the incident nonetheless caused intense psychological and emotional reactions.

Asians continue to be targets of racially motivated violence and crimes (Takaki, 1993, Young & Takeuchi, 1998) in the form of vandalism, intimidation and threats, aggravated assaults, and incidents involving bodily harm, harassment, racial slurs, and religious prejudices, with bias-motivated crimes increasing in brutality in recent years (National Asian Pacific American Legal Consortium, 2002). The National Asian Pacific Legal Consortium (2002) lists over 275 reported bias-motivated hate crimes against Asians; a notable 350 percent increase from 2000 to 2001 involve incidents including anti-foreigner statements particularly affecting

South Asians. After September 11, many Asian Indians were mistaken as Arab and with Islam being the second largest religion among South Asians, many Muslim individuals living in the United States became targets of anti-Arab feelings. Such suspicions and fears in the post-September 11 atmosphere continue to have a psychological impact on South Asians (Mio et al., 2006). Also noted was an increasing trend toward violence with 29% of the cases involving assault and battery, followed by vandalism (27%), harassment (21%) and threats (16%).

However, perpetual foreigner racism does not always manifest in a blatantly hostile or violent manner. For instance, Michelle Kwan, born in Torrance, California, and of the world's most famous ice figure skaters, was favored to win a Gold medal in the 1998 Winter Olympics in Japan. Due to a stumble in her performance, she took the Silver medal, second to her U.S. teammate, Tara Lipinski. Strikingly, the headline on the MSNBC website after the event read: "American beats out Michelle Kwan." An uproar ensued from the Asian American community over the mistake. At the 2002 Olympics in Salt Lake City, Utah, Kwan was again favored to win a Gold medal. Again she stumbled and this time taking the Bronze medal. Her teammate Sarah Hughes won the gold. The headline in the *Seattle Times* (Seattle has one of the largest percentages of Asians in the United States) read: "Hughes Good as Gold: American beats out Kwan, Slutzkaya." (Aoki & Mio, 2008). Michelle Kwan's case implies that even though she was born and raised in America, and skated on behalf of the United States, she was not considered a "real" American.

### **Socio-historical Racism**

Socio-historical racism includes experiences of racism related to collective, transgenerational and vicarious experiences with institutional or cultural racism. From the first

settlement of Asians in America, federal attempts to limit the immigration of Asians to the United States through the Chinese Exclusion Act of 1882 and the Gentlemen's Agreement of 1907 reflect pervasive anti-Asian sentiments. Perhaps the most recognizable and racist federal case of discrimination was the Executive Order 9066 issued by President Franklin D. Roosevelt in 1942, following the Japanese attack on Pearl Harbor in December 1941, which placed approximately 120,000 American citizens of Japanese ancestry and resident aliens from Japan – without due process – into concentration camps in California, Arizona, Washington and Oregon (Nagata, 1998).

Institutional racism has been an integral part of the history of Asian Americans and it continues in contemporary times, during which policies, regulations and practices continue to affect Asian Americans. Initiatives to make English an official language concentrate in areas with large Asian and/or Latino populations (Ancheta, 1998). In particular, Asian Americans have been denied jobs or fired from positions due to their accents and have been forbidden from speaking their native language in the workplace (Ancheta, 1998). Additionally, institutional racism may explain the controversial admittance procedures at select universities in the United States (Chan, 1991). With the high rates of acceptance of Asian Americans at elite universities, institutions such as Harvard, UC Berkeley, Stanford and Princeton have been accused of differential acceptance of Asian Americans despite similar or higher levels of academic achievement (Alvarez, 2008).

The birth of the *model minority* stereotype appeared to put an end to cultural racism for Asian Americans. This positive portrayal of Asian Americans has dominated American cultural perceptions for three decades. The Model Minority stereotype is the most contemporary view of Asian Americans (Chung & Sue, 1998), suggesting that Asian Americans embody the modern

day American success story. Beginning in the 1960s, sociologist William Peterson began to notice a pattern of high school valedictorians of Asian American descent (Petersen, 1966) and, as a result, wrote a Newsweek article “Success Story: Outwhiting the Whites,” introducing the term, “Model Minority”. In this article, Petersen argues that the media infuses a cultural emphasis on Asian Americans' perceived competence by portraying them as diligent and successful in their educational endeavors, describing Asian Americans or “well-behaved, diligent high achievers who persevere and are educationally successful despite socioeconomic and linguistic obstacles” (Hune & Chan, 1997; p. 44).

The model minority stereotype functions as proof that obtaining the “American dream” is a possibility for Asian Americans as well as other Americans of color (Chou & Feagin, 2008) and that Asian Americans no longer face any barriers to economic, social or political success (Lee, Nga-Wing, Wong & Alvarez, 2008). This myth conveys that Asian Americans function well in society, are immune to cultural conflicts and discrimination, and experience few adjustment difficulties. In other words, if Asian Americans can achieve success, all minority groups can be successful; hence racism is not an issue in the United States (Uba, 1994; Mio et al., 2006). In fact, according to a 1991 *Wall Street Journal*/NBC News national poll, most American voters do not believe Asian Americans encounter discrimination in the United States (McQueen, 1991).

Contrary to the model minority myth, high socio-economic status and educational and social success does not apply to all Asian groups. Without examining academic achievement for each distinct ethnic group, blanketing overall achievement of all Asian Americans can mask important heterogeneity among them. In particular, the lower performance of some groups (e.g., Southeast Asians, Pacific Islanders) may be concealed when they are grouped with higher

performing groups (e.g., South Asians, Japanese, Chinese) (Tran and Burman, 2010).

Nonetheless, the model minority myth misleads in more subtle ways as well. While many Asian Americans have been able to connect their educational achievement to occupational success (Tran & Burman, 2010), Asian Americans also face the “glass ceiling,” which refers to “attitudes and organizational barriers that prevent qualified individuals from career advancement” (Alvarez, 2008, p. 405). For example, there is a prominent underrepresentation of Asian Americans in executive posts (Marger, 2006) because of the stereotypes and assumptions that Asians lack communication skills and are docile and unprepared for leadership positions. In addition, income levels are not commensurate with levels of education for Asian Americans (Yeh & Inman, 2006; Lee et al., 2008; Tran & Burman, 2010), and there are disparities with disproportionate representation of Asian Americans at the managerial and executive level, longer times until promotion, as well as denials of promotions (Woo, 2000).

What is more, while the popular stereotype is positive on the surface, it constrains and creates intense social and psychological pressures on, and stress for, Asian Americans striving to live up to such an unrealistic and racially stereotyped expectation (Marger, 2005; Chou & Feagin, 2008). The stereotype appears as condescending and also hides the various forms of racial discrimination that most Asian Americans still face in their daily lives. Tran & Burman (2010) reviewed studies on Asian American academic performance and found that while cultural beliefs, value of education, hard work and success are predominant throughout Asian American ethnic groups, it is not clear if they are a product of Asian culture itself. The Asian American community’s strong emphasis on education and high academic standards, hard work, along with cultural values of filial obligations, conformity, and respect for authority, masks the real social, economic and psychological issues it experiences (Yeh et al., 2005).

Additionally, the model minority myth creates stressors that may place Asian Americans at risk for problems with achievement (Pang, 1991) as well as social and emotional adjustment (Marger, 2005; Sue & Zane, 1985). What is more, evidence for the negative impact of the model minority stereotype can be found in the relatively “deficit-oriented” or negative way that Asian Americans were portrayed, reinforcing their lower status relative to Whites (Tran & Burman, 2010). Some of the findings of comparison suggest that Asian Americans are overly perfectionistic (Castro & Rice, 2003), anxious (Chen & Stevenson, 1995) and fear failure (Eaton & Dembo, 1997). Further empirical evidence will be explained in the following section.

Furthermore, it was no coincidence that at the height of the Civil Rights movement when Black citizens were making progress in their pursuit of equal rights and opportunity that the “uncomplaining Chinese” were used as a model for other “more recalcitrant minorities” (Lee, 1998, p. 17). Along with the stereotype came an implicit comparison between Asian Americans and other ethnic minority populations, using the former to prove that equal opportunities existed for all races (Lee et al., 2008). Because Asian Americans were held as a model for other racial minorities to follow, resentment and hostility brewed among other groups of color (Marger, 2005; Mio et al., 2006; Lee et al., 2008). Inevitably, when the dominant society places Asian Americans as a model minority, it cultivates rivalry and opposition between Asian Americans and other people of color. For instance, in an effort to argue that affirmative action is no longer needed, opponents paint Asian Americans as victims of “reverse discrimination,” suggesting the policy only helps Blacks and Latinos. However, the assumption that civil rights laws or government initiatives that promote equality, no longer benefit Asian Americans is invalid (Lee et al., 2008). In fact, policies and programs for Asian Americans, particularly those who are low-income immigrants and refugees who are not yet fluent in English, are invaluable for those

in need of employment, education and housing (Lee et al., 2008). As such, the model minority stereotype “enforces the false perception that Asian Americans no longer experience racism and discrimination and thus do not need social services like bilingual education, affirmative action, health care, welfare and so on” (Lee et al., 2008 p. 74).

There is a wide variation in the prevalence of risk and protective factors and resiliency processes amongst Asian American groups. Thus, failing to recognize the complexity of Asian Americans as a racial group, the model minority stereotype allows policy makers as well as service providers to overlook the community and ignore many basic needs (Lee et al., 2008).

### **General Racism**

General racism reflects direct daily experiences with racism and stereotypes about Asian Americans. Research indicates that the model minority myth has harmful consequences. For instance, the perception of Asian Americans’ academic success is racially divisive and makes Asian Americans a target for other racial groups (Alvarez, 2008). Asian Americans are more likely to be teased, harassed, socially isolated, and at times physically attacked and robbed by their peers (Alvarez, 2008). As one African American youth pointed out, “The teachers think the Chinese kids can do everything. . . . Kids bother the Chinese kids in the hallway” (Rosenbloom and Way, 2004, p. 420).

Chou and Feagin (2008) conducted a qualitative study, interviewing 43 Asian Americans (Chinese, Taiwanese, Asian Indian, Korean, Vietnamese, Japanese, Filipino, Hmong, Pakistani, Thai and Bengladeshi) respondents regarding their experiences to the subtle, covert or overt racism that they have encountered in an array of spaces (neighborhoods, schools, shopping centers and workplaces), as well as the ways in which they counter and resist racism. They found

that racial hostility and discrimination are omnipresent and leave physical (e.g., hit with a baseball bat, store set on fire), mental (e.g., denial, depression, isolation) and emotional (e.g., internalization) tolls. In dealing with the everyday hostility and discrimination, interviewees used various coping mechanisms to protect themselves (confrontational resistance being infrequent) though they reported that everyday racism does affect their self-esteem and self-image.

An alarming concern is that statistics show lower rates of utilization of mental health services among Asian Americans in comparison with other Americans and given their representation in the population (e.g., Snowden & Cheung, 1990; U.S. Department of Mental Health and Human Services, 2001). Kearney, Draper and Baron (2005) examined counseling utilization rates among ethnic minority college students and found that Asian Americans utilize counseling services less than their African American, Latino American and White American counterparts. Moreover, Kearney et al. (2005) found that at intake, Asian Americans present with the greatest distress in comparison to other racial groups. Overall research has consistently shown that Asian American rates of utilization is only about one-third of what might be expected given the size of the population in the United States (Abe-Kim, Takeuchi, Hong, Zane, Sue, & Spencer, 2007; Tewari, 2009; and Yang & Worpap-Borja, 2007). Utilization of services has also been found to be dependent on generational status. Abe-Kim, Takeuchi, Hong, Zane, Sue, Spencer et al. (2007) analyzed the National Latino and Asian American Study and found that U.S. born Asian Americans have higher rates of service use than did their immigrant counterparts. The utilized outcomes have led to the belief that Asian Americans comprise a population free from psychological problems despite their minority status and experiences with racism.



There is an extensive history of racism experienced by Asian Americans in the United States (Young & Takeuchi, 1998) with research suggesting that Asians and Asian Americans are negatively affected by racism and racial discrimination (Goto, Gee and Takeuchi, 2002). The negative effects impact psychological functioning and overall mental health. The following empirical studies document effects of perceptions of racial discrimination and racism for Asian Americans.

### **Racism and Mental Health Outcomes for Asian Americans**

Several studies have indicated that the psychological health of Asian Americans is adversely influenced by their experiences with racism. Asamen and Berry (1987) were among the first to study perceived prejudice and its effects. Their study explored the self-concepts and feelings of alienation of 63 Japanese Americans and 44 Chinese American college students. Using a correlational design, they found that perceived racism negatively correlates to self-concept among Japanese Americans, though no significance for Chinese-Americans was found. While these results show that racism affects some Asian Americans, but not all, Asamen and Berry (1987) proposed that the difference could be accounted for by the generational differences between the Japanese American (third, fourth and fifth generations) and Chinese American (first generation) samples and the stage of “minority identity development” involved, which was not measured.

Several studies found perceived racial discrimination to be negatively related to collective self-esteem, with deleterious effects on overall psychological well-being. Boeckmann and Liew (2002) conducted a two-part study exposing Asian American university students (ethnicities unspecified) to racist hate speech (targets included Asian, African and overweight

persons) and other forms of offensive behavior. The psychological consequences of observing hate speech were examined by assessing students' emotional reactions and the impact that reading these accounts had on their collective self-esteem. The perceived extent of harm was measured by the Societal Impact Scale (Boeckman, 1996) to measure the extent to which harm experienced by an insult was perceived as focused on the individual target or having a broader societal impact. Emotional responses were assessed by asking participants to reread the scenario, then rate a list of feelings to "give us a sense of how you are feeling right now." The four emotions (anger, sadness, outrage, fear) were rated on a 1-9 Likert-type scale ranging from 1 (*not angry at all*) to 9 (*very angry*). Additionally, a retributive justice response, or the severity of punishment, was measured with a single item that asked participants to rate how severely the insulting person should be punished relative to a reference point from 0 (*least severe*) to 100 (*most severe*) scale, with 70 as a reference point (*punishment for public slander in the news media*).

A repeated measures ANOVA and hierarchical repeated measures regression indicated that hate speech directed at ethnic targets (i.e., Asians) deserves more severe punishment than other forms of offensive speech (i.e., overweight persons) and petty theft. In other words, hate speech garnered more extreme emotional responses (i.e., outrage, anger) from Asian Americans and, in the case of an Asian target, was more negatively related to collective self-esteem than for individuals exposed to other conditions. A limitation of the study is that since the hate speech was not directed at the participants, they responded to second-hand accounts. Given this, one might assume the direct experience with being the target of hate speech would no doubt result in more extreme and enduring consequences. Another limit of the study lies in the measurement of emotional responses. The researchers provided four options (anger, sadness, outrage, fear),

which not only directs the participants' reactions, but also may not capture the participants' true experience.

Three studies that examined perceived discrimination and stress for minority students focus on Asian immigrants versus Asian Americans. In the first study, Barry and Grilo (2003) examine the perception of personal and group discrimination, cultural (acculturation and ethnic identity), self-esteem and demographic correlates in 170 East Asian (58 Chinese, 50 Japanese and 62 Korean) immigrants. Two items assess personal and group experiences of discrimination; one for each respectively: "I find that Americans treat me as an equal" and "People from my ethnic group are discriminated against." Multiple regression analyses test three broad classifications of variables (cultural, psychological, and demographic) as predictors of participants' dimensional scores reflecting perceived personal or group discrimination. They found participants endorse experiences of personal and group discrimination, though group discrimination was found to be more highly endorsed. Overall, cultural factors (eight variables), self-esteem (five variables), and demographics (four variables) account for roughly 19%, 11%, and 7%, respectively, of the variance in perception of personal discrimination, and for roughly 17%, 8%, and 7%, respectively, of the variance in perception of group discrimination. Additionally, after performing two overall omnibus analyses using the six personal discrimination variables and the six group discrimination variables, there were differential associations between acculturation, ethnic identity and perceived discrimination, where overall ethnic identity was a significant predictor of perception of discrimination, while family values and ethnic pride were significant predictors of group discrimination. Whereas participants with greater English proficiency were less likely to report perception of personal discrimination, those who had lived longer in the United States were more likely to report perception of group

discrimination. Additionally, attitudes regarding patterns of discrimination are complex; participants who reported assimilation were less likely to endorse perceived personal discrimination but were more likely to endorse perceived group discrimination. Findings not only support that Asian immigrants experience discrimination, but that later generations prove to be more assimilated. As such, while perceived discrimination is still salient, it is understood more in regards to group experiences of discrimination. Perhaps in this way, later generations have a greater understanding of the socio-historical context of racism.

In a second study focusing on immigrants, Chiu and Ring (1998) examine psychological distress for Chinese and Vietnamese adolescents. They conducted an exploratory project with two samples of 90 Asian immigrant adolescents attending high school in the United States examining the relationships between ethnicity-related (minority student stress) and non-ethnicity related (negative life events) stressors with adaptive outcomes (psychological distress, behavior problems and academic performance). The researchers used a modified version of the Minority Student Stress Scale (MSSS; Prillerman, 1988) and developed the MSS-AA to measure the stress experienced by Asian American adolescents in a multicultural school setting. Negative life events were measured by the Life Events Checklist (LEC; Johnson & McCutcheon, 1980) with a self-report measure of academic performance and a child behavior checklist. Results of the hierarchical regression indicate that Asian immigrant adolescents experience a variety of stressors and that the patterns of these stressors may differ according to ethnic background.

Negative life events appear to take a larger toll on the Vietnamese adolescents who reported a significant and positive association with negative academic performance. These account for 22% of the variance. However, in the Chinese sample, minority student stressors (experience with racism) were linked with psychological distress and behavioral problems,

accounting for 49% and 36% of the variance respectively. These findings suggest that not only do Chinese and Vietnamese immigrants experience psychological distress due to racism, but they also understand the experience differently. The nuances in results may suggest differential migration history. While most Chinese immigrants came to the United States by choice and were better prepared to cope with a new environment, most Vietnamese refugees fled from their country because of war and violence, unprepared for a new life. Additionally, implicit in the flight of a refugee from one's homeland, there are pre-morbid stressful events before arriving in the United States. Thus, because immigrants experience possible reasons for distress related to racism differently, the present study will exclude immigrants.

Ying, Lee and Tsai (2000) conducted a study with both American born and Chinese immigrants examining racial discrimination to understand a sense of coherence in Chinese Americans. The immigrants lived in the United States for a mean of 8.80 years ( $SD=4.99$ ) and the American-born individual enjoyed a higher socioeconomic level than immigrants. The study examined the contribution of cultural orientation (derived from the General Ethnicity Questionnaire – Chinese and American versions; GEQC and GEQA, referencing American and Chinese cultures) and racial discrimination (assessed by the extent to which the participant “felt you were the subject of racial discrimination” in the last six months) to sense of coherence (examining the extent to which the respondents felt their life was comprehensible, manageable and meaningful) in 122 American-born and 231 immigrant Chinese American young adults. The researchers hypothesized that more frequent experiences of racial discrimination would lower sense of coherence. A Chi-Square analysis on cultural orientation (language use and proficiency, social affiliation, cultural pride, participation in cultural activities and food preference) determined that immigrants were more likely to be separated from mainstream Americans while

American-borns were more likely to be assimilated. In other words, immigrants were more likely to be separated in their social affiliation, while American-borns were more likely to be assimilated or bicultural. Both groups preferred to associate with people more like them culturally and/or in life experience.

Multivariate analyses showed the cultural orientations and racial discrimination significantly predicted sense of coherence in both American-borns and immigrants but it was a more powerful predictor for immigrants. While cultural orientation in the immigrants' sense of competent functioning is salient for American-borns, having lived in this society their entire lives, they felt cultural orientation was less relevant to their sense of coherence. Additionally, an assimilated orientation in the social affiliation domain was associated with a higher sense of coherence for immigrants. However, with regard to cultural pride, immigrants who were bicultural enjoyed a higher sense of coherence than those who were separated, assimilated or marginal. Thus, while assimilation into the mainstream allows for a comprehensible and meaningful life, it may actually be more holistically healthy to manage and enjoy both cultures. There are, therefore, implications for Asian Americans who more fully assimilate in regard to their racial identity, which the researchers do not explore.

Furthermore, racial discrimination had a harmful effect on sense of coherence for both American-born and immigrant Chinese Americans. However, while results indicate racial discrimination more strongly predicted sense of coherence for American-borns than immigrants, immigrants reported more encounters with racial discrimination than American-borns. The researchers surmise that immigrants may be more able to separate themselves from discrimination inflicted by other Americans because they can retain a psychological connection to their country of origin, whereas Chinese American youth are often promised that the

American dream is attainable if they work diligently, often at a personal cost. It is apparent that finding meaning and manageability is not completely in one's control, but affected by external incidences, like racial discrimination.

While Chiu and Ring (1998), Barry and Grilo (2003) both focus on Asian immigrant populations and not Asian Americans; and Ying et al. (2000) conducted a split study, their empirical work informs an understanding of the impact of racial discrimination, and even racism as a stressor, on psychological functioning. Moreover, as indicated, perceived discrimination may be differently understood in the examination of Asian Americans given migration history, assimilation and exposure/understanding of socio-historical context of racism.

Lam (2007) also uses sense of coherence (comprehensibility, manageability and meaningfulness) to examine 122 Vietnamese American college students to determine whether sense of coherence mediated relationships of perceived racial discrimination and of collective self-esteem to psychological distress (depression and anxiety). Specifically, perceived racial discrimination was hypothesized to result in a greater loss of sense of coherence, which in turn would lead to more psychological distress. Perceived racial discrimination was assessed by ratings of how much participants felt "racism affects the lives of people of their racial and ethnic group." Depression was measured by the 20-item Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977) and anxiety by the 20-item State-Trait Anxiety Inventory (STAI; Spielberger, 1983).

Lam conducted regression analyses to test sense of coherence as a mediator and found that higher levels of perceived racial discrimination were associated with a reduced sense of coherence and higher levels of depression and anxiety. Within the four steps of the regression analysis; first, students who perceived racial discrimination reported higher depression and

anxiety. Second, perceived racial discrimination was significantly negatively related to sense of coherence, suggesting more perceived racial discrimination reduced sense of coherence. Third, stronger sense of coherence was significantly associated with less depression and anxiety. Finally, the relationship between perceived racial discrimination and depression and anxiety were significantly reduced after controlling for the effect of sense of coherence. Though sense of coherence did not fully mediate the effect of perceived discrimination on depression and anxiety, it still exerted an influence on the dependent variables after controlling for sense of coherence.

While the findings were consistent with previous studies finding harmful effects of perceived racial discrimination on psychological well being, in this study, a weakened sense of coherence, which acts as a mediator, might put individuals at risk for developing depression and anxiety. The partial mediation effects of the sense of coherence on the relationship between perceived discrimination and distress suggests that there may be other important variables that explain the positive association. Lam (2007) also suggests that Vietnamese Americans might compensate for the effect of perceived racial discrimination by utilizing coping mechanisms, which change individuals' thought processes to fit to the existing conditions imbedded with structural barriers and oppressive conditions.

Gee, Spencer, Chen, Yip, and Takeuchi (2007) also confirm that the cumulative effects of racial discrimination might be harmful to the psychological health (particularly depression and anxiety) of Asian Americans. Gee et al. (2007) base their sample on a national study (N=2047; 13% Vietnamese, 22% Filipino, 29% Chinese, 37% other Asian or Pacific Islander). Everyday discrimination was measured by a nine-item scale adopted from the Detroit Area Study, which measured perceptions of chronic and routine unfair treatment (Williams et al., 1997). In the measure, respondents indicate how often (almost every day; at least once a week; a few times a



month; a few times a year; less than once a year; never) they experience each of the encounters such as “being treated with less courtesy than other people” and “people act as if they think you are not smart.”

Multivariate regression analyses were employed to explore the association between discrimination and 12-month mental disorders. They found that everyday discrimination was significantly associated with mental disorders above and beyond that associated with stressors such as acculturation and poverty. Results indicate that after controlling for sociodemographic characteristics, acculturative stress, family cohesion, poverty, self-rated health, chronic physical health conditions, and social desirability, perceived racial discrimination significantly increases the odds of having had any depressive or anxiety disorder within the past 12 months. Furthermore, multinomial logistic regression found that Asian Americans who report experiences of racism were at two-times greater risk of having had one disorder within the past 12 months and at three-times greater risk of having had two or more disorders.

Goto, Gee and Takeuchi (2002) investigated the perceptions of discrimination in over 1,500 Chinese Americans in regards to experiences with unfair treatment due to their race or ethnicity and their language or accent. Each perception of discrimination was measured by a single item; for perceived discrimination based on race, the question asked of respondents was: “Now thinking over your whole life, have you ever been treated unfairly or badly because of your race or ethnicity?” The question asked for language was: “Now thinking over your whole life have you ever been treated unfairly or badly because you speak a different language or speak with an accent?” Multiple logistic regression analyses found that 21% of Chinese Americans reported being discriminated against due to their race or language at one point in their life. Specifically, a person living in an ethnically diverse neighborhood was more than twice as likely

to experience discrimination due to language than a person living in a homogeneous neighborhood. Similarly, living with no other Chinese was associated with 3.45 times more unfair treatment than living among all Chinese.

Hwang and Goto (2008) examined the impact of perceived racial discrimination on various mental health outcomes for Asian American (N=107) and Latino (N=79) college students. The five largest groups of Asian Americans in the sample included Chinese Americans (N=34), Vietnamese Americans (N=20), Japanese Americans (N=15), Taiwanese Americans (N=12) and Korean Americans (N=10). Discrimination was measured by the GED, a global measure of overall discrimination experiences and also provides details concerning the specific types of discrimination one experiences and is affected by. The 6-point Likert-type scale for exposure to discrimination ranged from *never* to *almost all of the time* and *not at all stressful* to *extremely stressful*.

Hierarchical regression analyses were conducted to examine the relationship between independent variables and mental health outcomes. Regardless of ethnicity, perceived racial discrimination was associated with several negative mental health outcomes including higher psychological distress, suicidal ideation, state anxiety, trait anxiety, and depression. Asian Americans evidenced higher risk for trait anxiety.

The growing number of empirical studies documenting the negative impact of perceived discrimination and racism on mental health and psychological functioning for Asian Americans provides evidence that in spite of the model minority stereotype, their experiences indicate they still suffer from racism's deleterious consequences. Moreover, studies that examine people of color's experiences with perceived discrimination and racism provide a varied understanding about how Asian Americans experience racism differently from Blacks and Latinos.

For instance, Greene, Way and Pahl (2006) conducted a 3-year longitudinal study exploring the different experiences of perceived discrimination between Blacks (12%), Latinos (45%) and Asians (39% Chinese, 3% other Asian). Green, Way and Pahl (2006) examined a growth curve analysis with HLM (Bryk & Raudenbush, 1987, 1992) to explore the patterns, predictors and consequences of changes in perceived discrimination by adults and peers among Black, Latino and Asian American high school students. They assessed perceived discrimination by adults at each time point with a 7-item measure (Way, 1997) of their experiences of racial discrimination (i.e., *How often are you treated unfairly by adults because of your race or ethnicity?*). Perceived discrimination by peers was assessed similarly at each time point with a 7-item measure about their experiences of racial or ethnicity-based discrimination (e.g., *How often are you called names or insulted by other teenagers because of your race or ethnicity?*).

A hierarchical linear model was conducted with the high school students and results revealed an increase over time in levels of perceived discrimination by adults, whereas perceptions of discrimination by peers remain consistent over time. When Asian American adolescents reported increases over time in discrimination by adults and peers, they also report increases over time in depressive symptoms. Asian American adolescents report higher levels of peer and/or adult discrimination than Blacks and Latinos. In addition, Asian American adolescents report being discriminated against by Black and Latino students as well as by other Asian Americans, whereas Blacks and Latinos did not report that Asian Americans discriminated against them. It is reasonable that as Asian Americans encounter racial experiences that convey a sense of being devalued, they may be more likely to internalize these experiences and devalue themselves (Alvarez, 2008). In this way, Asian Americans perpetuate discrimination against their

own group. This dynamic may be better understood in regard to their racial identity development, which is examined in the present study.

Similar to Green et al.'s (2006) study, Fisher, Wallace and Fenton (2000) also found high peer discrimination with Asian Americans in educational contexts. Fisher et al. studied 177 American adolescents 23% Hispanic; 25% East Asian (Chinese and Korean); 8% South Asian (Indian) and 23% White. The 15-item measure of Adolescent Discrimination Distress Index was used to measure adolescent distress in response to perceived instances of racially motivated discrimination in institutional, educational and peer contexts. After each statement, students were asked to indicate whether they had experienced the type of discrimination *because of their race or ethnicity* and if they could rank how much it had upset them.

Planned comparison tests indicated that while youth from all ethnic backgrounds report distress associated with instances of perceived racial prejudice encountered in educational contexts, Asian American youth report encounters with peer discrimination most frequently. For example, although racial name-calling appears to be universal among adolescents of all ethnic groups, it was reported with particularly high frequency by East and South Asian youth. Moreover, Asian and White teenagers were more likely than African American and Hispanic youth in this sample to feel threatened because of their race. On the other hand, at least half of African American and Hispanic youth reported they were being hassled by store personnel, viewed as dangerous, or perceived as not smart because of ethnic prejudice. The study shows that not only is racial discrimination experienced by Asian American youth, but also it is differently experienced by race.

In contrast to previous empirical studies that measure experiences with racism as *perceived discrimination*, Carter et al. (2005) provides a more complex picture by exploring a

specific encounter with racism, which the participant has a first-hand account, provided directly by the individual in order to understand the psychological and emotional impact of racism.

Carter et al. (2005) examined 233 individuals who reported an encounter with racial discrimination. After Blacks (N=85), Asian Americans (N=25) accounted for the second largest proportion of those reporting Hostile Work Environment (13%) and Verbal Assault (25%).

Blacks, Asians and Biracial people reported Physical Assault (20%) with equal frequency. Carter et al. (2005) reported that Asians in their sample reported being psychologically and emotionally affected by incidents involving verbal assault, hostile work environments, violating racial rules, and being treated on the basis of stereotypes. Moreover, although Extreme Emotional Distress was the most frequently reported effect for all racial groups, reports among Asians (56%) were particularly high (as were for Latinos 43%). Blacks and Biracial people reported Extreme Emotional Distress at rates of 30% and 27% respectively. Among Asians, the second most commonly reported effect was Moderate Emotional Distress. These findings affirm that members of different racial groups experience racial discrimination and harassment distinctly from one another.

While scholars have begun to study how Asian Americans are psychologically impacted by race-based discrimination, there is a gap in understanding prevalence rates for Asian Americans and mental illness/disorders. Available evidence indicates that rates are low but in the same general range as rates for Whites (Meyer, Dhindsa, Gabriel & Sue, 2008). However, overall utilization rates of mental health services are low in comparison with other Americans (Snowden & Cheung, 1990; Spencer & Chen, 2004). While every population underutilizes these services, meaning that not all individuals with psychological disturbances seek help from mental health systems and practitioners, there is considerable evidence showing Asian Americans are

more likely than the general population to underutilize services (Meyer et al., 2008). That Asian Americans utilize mental health services to such a minimal degree continues to perpetuate the model minority stereotype, giving the illusion that Asian Americans are free from psychological problems despite their minority status and experiences with racism. However, Asian Americans indeed do experience stress related to racism.

### **The Influence of Coping on the Racism-Related Stress-Mental Health Relationship**

Kuo (1995) conducted the first study on how Asian Americans cope with racism. In order to examine the experience of discrimination and ways of coping, the study uses a data-set of 499 Asian American residents of Seattle were used for the analysis. The sample consisted of 124 Chinese, 134 Japanese, 129 Filipinos and 112 Koreans. The make-up of these four groups reflects their immigration history: Japanese and Filipinos have higher percentages (not specifically indicated) of American-born respondents than either the Chinese or Korean (1%). Respondents were asked whether or not they had ever (1) experienced racial discrimination when seeking housing, (2) been treated worse than, or differently from, Caucasians in a job because of their ethnicity and (3) experienced any other racial discrimination. Their answers were coded as “yes” or “no.” Those who answered “yes” were subsequently asked about the specific types of discrimination experienced.

Coping was measured with the Ilfeld coping inventory (1980) focusing on emotion-focused coping (5 items) and problem-focused coping (4 items). Cultural values were investigated using an index of traditional cultural beliefs and practices (Connor, 1977). Minority status was measured by seven items selected from the study of National Opinion Research to

gauge a respondent's perception of minority status (e.g., "White people have a right to keep Asians out of their neighborhoods").

A regression analysis revealed that Asian Americans utilize a coping strategy (emotion-regulation) of accommodation, preferring strategies that focus on restructuring their cognitions about racism rather than a direct-action approach to solve discrimination problems. In this way, strategies involved avoidance and optimistic comparison. For instance, Kuo (2005) found that 54% "told themselves that discrimination was not really important and that 54% often or sometimes just tried to ignore discrimination" (p.199).

In contrast to what Kuo (2005) hypothesized, findings disclosed that Asian Americans with a strong sense of their disadvantaged minority status opt for emotion-regulating coping strategies. Kuo (2005) offers the interpretation that "the power differential between majority and minority groups discourages direct action against the source of discrimination" (p. 122). Moreover, he argues that the perception of the existence of an inequitable and biased racial system "may simply discourage Asians from direct confrontation with discrimination, especially Asians who could suffer serious losses" (p. 122).

Furthermore, Kuo (2005) identified education as a social-resource indicator, which influences problem-focused coping positively and emotion-focused coping negatively. In other words, Asian Americans who were more educated were less likely to dismiss or ignore their experiences with racism. Kuo (2005) theorized that education may be one marker of an individual's access to, or comfort with, social resources, which in turn increases likelihood of utilization of such resources.

With regard to positive effects of traditional cultural values on emotion-focused coping, the regression analysis confirms that traditional Asian cultures encourage conformity,

compromise, adaptation and conciliation in the face of conflict or aversive circumstances, especially in interpersonal relationships. The emphasis on personal responsibility and a drive for success discourages the use of direct action tactics. Results indicated that fewer than half of the participants were willing to talk with their friends or family or report the incident with a civil rights or ethnic-based organization. However, Kuo (2005) cautions the generalization of such results noting that perhaps the encounters with discrimination reported were not severe (business losses and physical assault), where Asian Americans are known to “actively participate in community organizing for demonstrations, protest and legal litigation” (p. 123).

Finally, Kuo (2005) found differences in the choice of coping strategy according to ethnicity. Specifically, he found that Filipinos and Japanese were more likely than Chinese and Koreans to take action by turning to friends, family and ethnic organizations, whereas Koreans and Japanese were more likely than Filipinos and Chinese to use accommodation strategies. In effect, Kuo (2005) suggests that the nature of how Asian Americans cope with racism may be a more complex phenomenon, with different ethnicities coping in distinct ways as a reflection of the diversity within the community.

Researchers have begun to address the complexity of coping with racism by examining the ways that coping strategies mediate or explain the relationship between stress and adjustment problems (Lazarus & Folkman, 1984) and, more recently, racism-related stress and psychological outcomes (Clark et al., 1999; Klonoff et al., 1999).

While most studies indicate that direct or active coping strategies are related to more positive health outcomes, Noh Beiser, Kaspar, Hou, and Rummens (1999) suggest that for Asian Americans, this is not the case. Noh et al. (1999) focused on 647 refugee adults with 281 (43.4%) Chinese and 366 (45.6%) Vietnamese and Laotian. The refugees' level of formal



education was significantly lower than that of the general population with fewer than 30% of participants having completed 12 or more years of formal schooling and 8.5% of whom received formal education after arriving in Canada.

Coping responses were measured by the following questions: “*Overall how did you mainly react to these unpleasant experiences.*” Respondents answered “yes” or “no” to each of seven possible reactions. A principle component analysis of the responses identified two coping responses: forbearance and confrontation were identified as being especially relevant to Asians. Noh et al. (1999) found that in their sample of Southeast Asian refugees, forbearance – consisting of cognitive and behavioral responses that may be characterized as passive acceptance and avoidance of discriminatory experiences (similar to emotion-focused coping) – diminished the strength of the link between discrimination and depression. Contrary to what is suggested in literature, where confrontation or action-oriented coping has a positive relationship with psychological outcomes (Billings and Moos, 1981; Lazarus & Folkman, 1984), the authors found that confrontation had no effect on the relationship between racial discrimination and depression. Forbearance, however, displayed a statistically significant negative relationship with depression among individuals who held a stronger ethnic identification, explaining an additional 5 percent of the variance in symptoms over and above that accounted for by discrimination. In other words, participants who used Forbearance to cope and who also had a strong ethnic identity reported less depression. Noh et al. (1999) understands the stress-buffering effect of forbearance through the subtle and difficult nature of experiences of discrimination, which a majority of the refugees reported. These subtle and elusive forms of discrimination, such as being looked down upon and receiving unfair treatment may not warrant a confrontational response, or may be appraised as counter-productive.

However, while the findings support the view that forbearance is effective in reducing the adverse impact of perceived discrimination, the protective nature of forbearance amplifies among participants with the strongest connection to traditional ethnic values and ethnic communities. Thus, forbearance moderated racial discrimination-related depression whereby individuals with a higher ethnic identity experienced less depressive symptoms than individuals with a lower ethnic identity. However, neither confrontation nor forbearance proves an effective coping strategy for protecting the mental health of those individuals who did not identify with traditional ethnic values. It is unclear however whether participants who feel less connection to their cultural values have less effective coping strategies.

The current direction of Asian American racism research sets out to examine moderating, rather than mediating, effects of coping against perceived discrimination. Noh et al. (1999) suggested that the effect of indirect coping among Southeast Asians was a result of their worldview, which valued indirect communication. Thus, the relationships among Asian Americans' stress, coping and distress may differ from their White counterparts, as well as Black counterparts, where coping strategies have been found to protect against negative mental health outcomes (Krieger, 1990). However, given that the population was comprised of refugees in Canada with lower education, the findings may not be generalizable to a sample of Asian Americans of higher educational attainment in the United States.

In a later study of adult Korean immigrants in Canada, Noh and Kaspar (2003) found conflicting results where problem-focused coping (with perceived discrimination) had moderating effects on depressive symptoms and other psychosocial factors and life contexts. However, the use of emotion-focused coping was associated with higher levels of depression. These results are in extreme contrast to the patterns exhibited by a sample of Southeast Asians in

Canada (Noh et al., 1999). Noh and colleagues suggested that the discrepancies between coping strategies may reflect differences in social resources, length of residency and acculturation levels.

Wei, Heppner, Ku and Liao (2010) provided the most recent study on Asian Americans and explored how coping moderated the association between racial discrimination stress and depressive symptoms. Data was collected from 201 Asian American college students in the Midwest with 23.5% Korean, 21.4% Chinese, 10% Vietnamese, 9.5% Laotian, 9% Indian, 9% Filipino, 4.5% Japanese, 3.5% Multiethnic Asian, 3% Taiwanese, 2% Taidam, 1.5% Hmong, 1% Cambodian, 1% Thai and 0.5% Indonesian.

Perceived General Stress was measured by a 10 item scale which measured general perception of stress in the past month (Cohen, Kamarck, & Mermelstien, 1983). Two types of coping strategies were measured. The first was problem-focused coping strategies, using an 18 item Likert-scale assessing the consequences of problem-focused coping activities that would either facilitate or inhibit progress toward the resolution of stressful life events in general. The three styles of coping were reflective, suppressive and reactive, with higher reflective scores indicating a greater utilization of coping activities that promote progress in resolving stressful life events. Conversely, higher suppressive and reactive scores indicate a greater utilization of coping activities that inhibit or hinder the resolution of stressful life events.

The second coping measure was based on the Collectivistic Coping Styles Inventory (Heppner et al., 2006), which is a situation-specific collectivistic coping inventory initially developed on Taiwanese college students. The measure was modified to focus on how people coped with racial discrimination experiences. The inventory consisted of 30 coping items to assess the utilization of collectivistic coping strategies that either facilitated or hindered

individuals from resolving racial discrimination. The factors include Acceptance, Reframing and Striving; Family Support, Religion/Spirituality; Avoidance and Detachment; and Private Emotional Outlets.

A hierarchical multiple regression analysis tested whether racial discrimination stress was significantly related to depressive symptoms after controlling for perceived general stress and perceived discrimination, finding that racial discrimination stress added an additional 4% variance in predicting depressive symptoms over and beyond perceived general stress and perceived discrimination. Moreover, in regards to coping as a moderator, two moderators were found. The first significant moderator was reactive coping, suggesting that its frequent use, which tends to hinder the resolution of stressful situations, heightened the strength of the association between racial discrimination stress and depressive symptoms. The second significant moderator was family support, which indicated that a high level of helpfulness from family support can be beneficial in lessening the association between racial discrimination stress and depression. Thus, the helpfulness of family support in dealing with stressful problems such as racial discrimination reflects a culturally congruent coping strategy.

While Noh and Caspar (2003) examined the moderating effects of coping strategies on the relationship between perceived discrimination and depression, coping as mediator, as posited by Lazarus and Folkman (1984) has less empirical evidence. It is important to note that there have been conceptual differences in understanding the impact of coping through moderator models (Noh et al., 1999; Wei et al., 2010) versus mediator models.

Currently, there are two studies that examine coping as a way to understand the relationship between perceived discrimination and racism-related stress. Liang, Alvarez, Juang, and Liang (2007) examine coping as a mediator of the relationship between perceptions of

racism and racism-related stress with a sample of Asian American college students using the Stress and Coping Theory (Lazarus & Folkman, 1984). The researchers examined 254 West coast college students and 82 East coast college students for a total of 336 undergraduates. Liang et al. (2007) used the COPE Inventory (Carver et al., 1989), consisting of 60 items, which focuses on problem-focused, emotion-focused avoidance and support seeking styles of coping.

Three multiple regression analyses were used in four steps indicating that coping mediated the relationship between racism and racism-related stress differentially by gender. The results indicated that men were more likely to report having experienced racism. Moreover, women are more likely to use support-seeking coping than men. The more men perceived racism, the more likely they were to use support-seeking coping strategies that were associated with higher levels of racism-related stress. The more women perceived racism, the more they used active coping strategies that were associated with higher levels of racism-related stress. Thus, both men and women used coping strategies that were associated with high levels of racism-related stress.

However, a limitation of the study remains that because the COPE measure bases its findings on individualistic, Western notions, the coping strategies and measure may not accurately capture the experiences of these Asian American college students. Similar to Noh et al. (1999) and Noh and Kaspar (2003), this study measured coping from an individualistic perspective, which proves incongruous with Asian Americans (Chang, 1996), which leads to the possibility of a limitation in the literature and inconsistent results. Moreover, given the caution of using individualistic coping strategies for Asian Americans, perhaps studies would find significant relationships with coping as a moderator across studies if collectivistic coping were employed.

Alvarez and Juang (2010) provide the most recent of the mediating effects of coping on the relationship between perceived racism and psychological stress and self-esteem, respectively for Filipino Americans. Participants consisted of 199 Filipino Americans who participated in a larger study on racism in the San Francisco Bay Area, with 47% identifying as first generation, 46% identifying as second generation, and 7% identifying as third generation or higher. Perceived racism was measured by the Racial and Life Experiences Scale (RALES; Harrell, 1997), which consists of 20 items that measure one's perceptions of racial microaggressions such as being ridiculed or differentially treated. They also used the COPE Inventory (Carver, Scheier, & Weintraub, 1989) to assess how individuals respond to stressful events.

Two multiple mediation models found that active, support-seeking, and avoidance coping were mediators of the relationship between perceived racism and psychological distress for men. Active coping was negatively associated with psychological distress, whereas both support-seeking and avoidance were positively associated with psychological distress. A second bootstrap procedure for men indicated that active and avoidance coping mediated the relationship between perceived racism and self-esteem such that active coping was positively associated with self-esteem and avoidance was negatively associated with self-esteem. For women, only avoidance coping had a significant mediating effect that was associated with elevations in psychological distress and decreases in self-esteem.

Both Liang et al. (2006) and Alvarez and Juang (2010) use the Lazarus and Folkman (1984) model of stress and coping as a framework where coping strategies act as a powerful mediator (or causal mechanism) between stress and psychological distress. In studying the potential for coping strategies as a mediator in the relationship between racism-related stress and

psychological distress, one can understand collectivistic coping as a function of racism-related stress, which in turn will influence one's psychological distress.

Alternatively, examinations of moderators suggest that there may be other influences that emerge independently to influence the relationship between the stressful event and outcome to address "when" or "for whom" the stressor is more strongly related to the outcome. While ethnic identity has been examined as a protective factor against racism, racism-related stress and racial discrimination for Asian Americans (Green, Way, & Pahl, 2006; Lee, 2003; Liang & Fassinger, 2008; Mossakowski, 2003; Hoh et al., 1999; Yoo & Lee, 2005), findings are unclear. Mixed findings may suggest that the construct of ethnic identity does not accurately capture socio-political aspects of identity, which informs psychological and emotional reactions to racism. When investigating a social construction such as race, racism exists because characteristics such as skin color, hair texture, or facial features act as a basis for racial group differences, and as such, one's racial identity attitudes may be a better way to understand the way by which one protects against racism-related stress.

### **The Influence of Racial Identity on the Racism-Related Stress-Mental Health Relationship**

For Asian Americans, regardless of their country of origin and ethnic identification, racial identity refers to how individuals experience themselves as a function of their racial categorization (Chen et al., 2006). However, most psychological research focuses on cultural and ethnic variables for Asian Americans (Helms & Cook, 1999). Most empirical studies on Asian Americans argue that a limitation of their study is the aggregation of data by ethnicity, given the diversity within the group (Uba, 1994; Espiritu, 1991). One of the main criticisms of the model minority stereotype is that it is based on an incorrect assumption that Asian Americans comprise

one homogeneous group. However, different ethnic groups have unique psychological processes based on culture and should be researched separately (Neighbors et al., 2007). Asian Americans are composed of 25 different ethnicities and include a vast diversity in regards to country of origin, language, culture, socio-economic status, educational attainment, and immigrant experience (refugee vs. immigrant).

On the other hand, by focusing on ethnic variables, researchers often overemphasize cultural differences and minimize racism and oppression as influencing factors of identity formation in Asian Americans as a whole (Chen et al., 2006). Despite the distinct historical and political experiences of each Asian ethnic group, and regardless of their particular country of origin and ethnic identification, there is a shared experience of Asian Americans regarding the way individuals experience themselves as a function of their racial group. Capturing the sociopolitical aspects of identity and the distinct ways that Asian Americans experience racism requires a separate investigation that can be better understood with the construct of *racial identity*.

Various forms of Asian American racism-related stress, or more specifically, general experiences of racism, socio-historical racism and perpetual foreigner racism associate with identity issues for Asian Americans. Examining experiences of racism leads to concerns and questions about how a person understands these experiences, inevitably resulting in a discussion about racial identity development.

Racial identity refers to the meaning one makes of one's racial group membership, the extent to which one psychologically identifies with, or chooses not to identify with, one's racial reference group, and the emotional, behavioral and cognitive expressions of this identification (Carter, 1995; Helms, 1990). The focus is on the quality of one's identification with an emphasis



on how individuals come to recognize and overcome the psychological and internalized effects of racial oppression (Helms & Cook, 1999). The basic premise of racial identity theories is that People of Color and Whites have been socialized differently due to racial classification and the reaction of others to racial classification. Racial identity theories describe the process by which an individual moves from a more negative or unexamined ego status towards a more positive, differentiated racial identity. Thompson and Carter (1997) describe a transformative process people undergo to achieve racial self-actualization. To evolve from least mature or sophisticated statuses to the more advanced statuses of development, individuals encounter a series of experiences that challenge racism and that, in turn, lead them to personal self-reflection. Self-reflection takes place when reconciling racial indoctrination and the manner in which people relate to others who are racially similar or racially dissimilar to themselves (Thompson & Carter, 1997). Helms (1995) proposes that individuals can operate at multiple statuses at any given point in their lives and the expression of any particular status depends on its centrality in the individual's overall identity as well as the situational context.

Cross (1978, 1991) and Helms (1990) propose the racial identity models used most frequently in counseling psychology literature. Helms' (1995) People of Color Racial Identity model consists of five statuses: Conformity, Dissonance, Immersion-Emersion, Internalization and Integrative Awareness. Individuals in the *Conformity* status are characterized by the rejection of their own racial group and have preferences for the dominant racial group (White Americans). Individuals seek self-definition and self-esteem from Whites and feel no loyalty or obligation to people of color groups. In the next status, *Dissonance* is characterized by ambivalence or conflict about racial and cultural attitudes toward one's own racial group and sense of belonging to either the majority group or his or her own racial group. Individuals realize

that hard work alone is not sufficient for attaining the “American dream.” In the *Immersion-Emersion* status, individuals idealize and immerse themselves in their own race and culture while rejecting and holding negative attitudes about the dominant society. Individuals in this status also look for positive characteristics of their racial groups and turn to those groups as a source of support. The *Internalization* status occurs when individuals have positive attitudes toward their own racial group, use internal criteria for racial self-definition and have the capacity to assess and respond to members of the dominant racial group objectively. For example, instead of trying to break the stereotype that Asian Americans are good at math, an individual might question how that stereotype preserves the status quo (i.e., Asian Americans study hard and work hard and do not make waves) and then decide for themselves what value to place on math excellence.

*Integrative Awareness* is the status in which individuals value their own group identity as well as recognize similarities between themselves and members of other oppressed groups. Individuals feel a connection with members of other racial and oppressed groups and attempt to eliminate racism and other forms of oppression.

Helms (1995) suggests that individuals have schemas of varying saliency related to multiple racial identity statuses. In this way, an individual is not defined by one status; rather, an individual may demonstrate characteristics of more than one racial identity status, which can vary in degree and frequency. Thus, a racial identity *profile* is created of statuses to understand the composite of one’s racial identity development. For example, an individual may have an identity in which integrative awareness attitudes are most salient. The individual comes to terms with personal experiences of racism, develops a strong sense of pride and self as an Asian American and becomes active in combating racism. However, when encountering an instance of racism, it can trigger emotions of hurt and anger, causing the individual to retreat, re-experience

or have more self-protective attitudes (i.e., Whites are racists) and behaviors (e.g., seeking the support of other Asian Americans) which is a characteristic of the immersion/emersion status. Recent research (Carter, 1996, Carter et al., 2004; Chen, LePhuoc, Guzman, Rude, & Dodd, 2006) supports the notion that individuals endorse multiple racial identity schemas, finding consistent patterns in how much people endorse schemas of each status relative to one another.

Research on the impact of racism on the oppressed focuses on the oppressor (outgroup) to the oppressed (ingroup), but gives far less attention to the subtle processes by which racism is experienced from other members of their group or even beliefs individuals hold against themselves (Pyke and Dang, 2003). One of the ways that Asian Americans' racial identity attitudes remain distinct from other racial groups lies in the ways Asian Americans internalized racism. Internalized racism is defined as:

“... acceptance by members of the stigmatized races of negative messages about their own abilities and intrinsic worth. It is characterized by their not believing in others who look like them, and not believing in themselves. It manifests as embracing “Whiteness”; self-devaluation; and resignation, helplessness, and hopelessness” (Jones, 2000).

This concept of internalized racism functions in a way that justifies racism, with the oppressed believing in their inferiority (Essed, 1991; Feagin and Vera, 1995). Internalized racism has a distinct manifestation for Asian Americans given the model minority stereotype, where some Asian Americans buy into seemingly positive stereotypes, striving to achieve a “model” status.

Pyke and Dang (2003) draw on the concept of internalized racial oppression in framing their study and findings. In a study among second generation Korean and Vietnamese Americans, the researchers conducted 184 in-depth interviews to find that the racial beliefs, meanings and stereotypes of the mainstream society shape how participants think about identity

and racism. The researchers examine the terms “FOB” (“Fresh Off the Boat”) and “whitewashed,” which were commonly used to denigrate “others” as “too ethnic” or “too assimilated,” while holding those at the bicultural middle as “normal.” The terms function in the following manner:

“By denigrating the traits and practices of the more ethnically traditional, assigning them to the derogatory stereotypes associated with their racial/ethnic group, and deriding their lack of Americanization, the assimilated and biculturals can distance themselves from the negative stereotypes and construct themselves as distinct and superior. This allows them to avoid shame and embarrassment that ethnic traditionalists inspire, indicating the internalization of the racial and anti-immigrant biases of the mainstream” (p. 168).

In doing so, participants constructed an adaptive response to the racial oppression of the larger society.

Internalized racism, therefore, adds complexity to understanding the perception that Asians aspire to be White. In regard to racial identity, the desire to be White or idealizing Whiteness can be understood as a less developed ego status, or conformity. Thus, while Asian Americans appear to be socially integrated (Chang, Tugade, & Asakawa, 2005) with higher rates of intermarriage among Asian Americans than among other ethnic minority groups (Kitano, Yeung, Chai & Hatanaka, 1984), social integration may come at a cost in regard to racial identity attitudes. In terms of interracial marriage, 12% of all married Asian men and 23% of all Asian married women were married to non-Asians (Xie & Goyette, 2004). Asian women marry outside of their racial group disproportionately more frequently compared to men with the exception of Asian Indians. Amongst the largest Asian ethnic groups (Indian, Chinese, Filipino, Japanese, Korean and Vietnamese) in the United States, across groups, Whites are the highest percentage

of marriage partners. For instance, Japanese Americans have the highest rates of interracial marriage (65% for men and 47.4% for women) where Japanese men marry 19.7% Whites interracially and Japanese women marry 38.2% Whites interracially (Le, 2009). Some argue that culturally assimilated Asian Americans marry White Americans more frequently than their less assimilated peers because these marriages are considered more desirable by Asian Americans (Hwang, Seanz & Aguirre, 1997), but marrying into the White majority can also be a manifestation of internalized racism for some Asians Americans.

In contrast to the many existing studies on Black racial identity, only a handful of studies have been conducted on Asian Americans regarding racial identity (Alvarez & Helms, 2001; Alvarez, Juang & Liang, 2006; Kohatsu, Dulay, Lam, Concepcion, Perez, Lopez & Euler, 2000; Yeh, Carter & Pieterse, 2004; Carter & Constantine, 2000; Kim, 2001; Liu, 2002; Chen et al., 2006). Every study on Asian American racial identity uses Helms' model and the People of Color Racial Identity Attitudes Scale (PCRIS; Helms & Carter, 1990). Scholars have examined the construct validity of the PCRIS for Asian Americans (Alvarez & Helms, 2001; Kohatsu et al., 1990; Yeh, 1997) and found the schemas to be significantly related to Asian Americans' awareness of racism, yielding valid scores for Asian American samples.

Alvarez and Helms (2001) found that racial identity was related to one's awareness of racism among Asian Americans. They reported that components of PCRIS aligned for their 188 Asian American college student population while the Dissonance status was significantly related to a low awareness of interpersonal racism. Given the way that internalized racism functions, people in the Dissonance status, being more White-identified, may not recognize racism directed at them if they don't recognize themselves as a Person of Color. In other words,

individuals who operate from a status in which he or she is ambivalent about racism and only has a beginning awareness of racism is less likely to perceive racism.

In contrast, the Immersion-Emersion status was significantly related to a higher awareness of interpersonal and institutional racism. In other words, when Asian Americans primarily operate from a developmental status in which they are immersed in their culture, hostile toward White Americans, and hypervigilant against racism, then they are more likely to perceive racism.

Further expounding on these findings, Alvarez, Juang and Liang (2006) examine the relationships between racial socialization, racial identity and perceptions of racism with 254 Chinese and Filipino American college students. Multiple regression analyses indicated that racial socialization, particularly discussions about race and racism, was positively related to one's perceptions and awareness of racism. On the other hand, individuals without such experiences may find it more difficult to identify racism as it occurs. Moreover, the study also showed that the relationship between racial socialization and perceptions of racism was partially mediated by racial identity schemas. In particular, the relationship between racial identity schemas (Dissonance and Immersion-Emersion) and perceptions of racism was found to be significant. As predicted by theory, an Asian American's exposure to more overt dialogue about racism assists both a beginning awareness of racism characterized by Dissonance as well as a sense of hypervigilance about racism as characterized by Immersion-Emersion schemas.

Given that racial identity theory (Helms, 1995) describes how an individual psychologically understand and copes with the effects of racism, Liang et al. (2004) encouraged future research in the examination of the relationship between racism-related stress (AARRSI) and racial identity. Chen, LePhuoc, Guzman, Rude, and Dodd (2006) were the first, and only,

published study to address this relationship. Chen et al. (2006) conducted an exploratory study with 344 Asian American adults including 14 Asian American ethnic groups with the largest groups being Chinese American (34%), Taiwanese American (11.6%), Filipino/a American (10.5%), Korean American (10.5%), Japanese American (8.7%), Vietnamese American (8.4%) and Indian American (5.5%). The sample also included 231 women and 113 men. Chen et al. (2006) explored the relationship between Racial Identity Attitudes and Asian American Racism-Related Stress. The People of Color Racial Identity Attitudes Scale (PCRIS) (Helms & Carter, 1990) assesses attitudes characteristic of racial identity statuses. Color Blind Racial Attitude Scale (CoBRAS) is a 20-item instrument designed by Neville et al. (2000) to assess the degree to which individuals believe that “race should not and does not matter” in society (p. 60). In the current study, AARRSI measures racism-related stress.

Researchers used *k*-means cluster analysis to create racial identity clusters (profiles) using the PCRIS. With the *k*-means method, the sample is not necessarily divided into equal sized clusters; thus, some clusters can include more cases than others, which was the case for this study. Chen et al. (2006) determined that a four-cluster solution best fit the data based on the examination of cluster centers and interpretability. Each cluster was interpreted as a racial identity profile based on cluster centers (i.e., the mean *z*-scores) of the racial identity subscales. Scores on the Asian American Racism-Related Stress Inventory and the Color-Blind Racial Attitudes Scale were compared across clusters.

Results showed that Cluster 3: Dissonance (N=70) and Cluster 4: Immersion (N=80) were characterized by relatively high racism-related stress and low levels of color-blind attitudes, which is appropriate given that dissonance is defined as confusion and internal conflict regarding racial identity, and even struggling with internalized racism. Dissonance individuals may have

more stress about racism-related issues because they were beginning to be more aware of racial issues but unsure of their feelings about racial inequality and discrimination.

Cluster 2: Conformity (N=83) showed roughly the opposite pattern, showing a high score on the PCRIAS Conformity status and low scores on the PCRIAS Immersion-Emersion and Internalization statuses. Individuals in the conformity cluster may feel that accepting dominant White standards would benefit them most rather than making a fuss about racial issues. Given that the conformity cluster had significantly lower racism-related stress scores on all the AARRSI subscales than both Dissonance and Immersion clusters, it appears that issues of race and racism may not have been stressful. Individuals in this cluster seemed to approach the world with colorblind racial attitudes, to not consider race to be a big issue in their lives and to exhibit low levels of stress related to racism. Another possible explanation for this cluster is that it is easier and more culturally acceptable to live harmoniously and not raise issues, or even more, individuals may not acknowledge experiences of racism or that racial dynamics continue to exist for them.

Surprisingly, the first cluster, Internalization (N=84), showed a pattern similar to that for Conformity and thus may reflect “pseudoindependence” as discussed by Helms. Although the finding was unexpected, it is similar to Alvarez and Helms’ (2001) results for which the Internalization subscale was negatively related to individuals’ awareness of interpersonal racism. One possible way of understanding the result is that social desirability influenced participants’ responses to Internalization subscale items. Another possible interpretation is that while it may appear that individuals have reached a more mature and well-integrated awareness regarding their racial identity based on their PCRIAS scores, they are actually in denial. This may resemble more *pseudoindependence* status, reflecting only a superficial understanding of racial issues.



Conversely, it could be argued that individuals in the Internalization cluster experience less racism-related stress and find racial privilege and institutional discrimination less salient because their integrated awareness and work around racial identity issues has developed a degree of comfort.

Chen et al. (2006) reveal that Asian Americans experience different levels of racism-related stress based on their racial identity status attitudes. However, as the only study that examines this relationship, further research is necessary. Moreover, racial identity still remains unexamined as a moderator between racism-related stress and psychological and emotional reactions to racism.

### **A Statement of the Problem**

The transactional stress and coping model proposed by Lazarus and Folkman (1984) is useful for understanding differences in the way people respond psychologically to racism experiences, with racism as the chronic stressor. Lazarus and Folkman (1984) argue that coping mediates the relationship between stressor and stress. Empirical research on racism-related stress has typically found that racism has a negative impact on psychological well-being and tends to increase reports of psychological distress (Clark et al., 1999; Ocampo, 2000; Utsey et al., 1999; Dion, 2002; Kessler et al., 1999, Fang & Myers, 2001; Jackson et al., 1996; McNeilly et al., 1996). Scholars have argued that because of the distinct socio-historical and political histories of different People of Color, experiences with racism can affect each racial minority group differently (Comas-Diaz & Green, 1994; Liang et al., 2004). Specifically for Asian Americans, despite the model minority stereotype, which masks needs and problems, research clearly indicates that Asian Americans continue to experience racism-related stress and discrimination, which impact their psychological functioning (Alvarez et al., 2004; Chen et al., 2006; Lee,

2005). Additionally, research on coping has typically found that Asian Americans use collectivistic coping strategies to manage stress, and some scholars have argued that traditional measures of coping may not adequately capture the range of specific culturally relevant strategies Asians use to deal with stress (Yeh et al., 2006; Yeh et al., 2008). However, a gap exists in psychological literature given that few studies assess the use of coping to deal with racism for Asian Americans, and those studies use traditional coping measures (Liang, Alvarez & Juang, 2007). A number of scholars have suggested that emphasis should be placed on examining individual difference variables that might account for variability in reactions to racism within the Asian American population, which serve as protective factors to negative physical and mental health outcomes (cite). One such individual difference variable, which receives limited attention in the research literature, is racial identity. A final gap in the literature is that most of the research that explores how racism-related stress for Asian Americans does not focus on examining the psychological distress. Therefore, the present study sought to address this gap in the existing literature and examined the mediating role of collectivistic coping and moderating role of racial identity status attitudes in the relationship between racism-related stress and psychological distress for Asian Americans. Therefore, as a mediator in the present study, collectivistic coping strategies are a response that is elicited by racism-related stress that in turn directly influences the psychological reactions to that stress.

**The hypotheses for the proposed study are as follows:**

**Hypothesis I:** Higher racism-related stress will be positively predictive of higher psychological distress for Asian Americans.

**Hypothesis II:** Higher racism-related stress will be positively predictive of higher collectivistic coping for Asian Americans.

**Hypothesis III:** Higher collectivistic coping will be negatively predictive of psychological distress for Asian Americans.

**Hypothesis IV:** Collectivistic coping will mediate the relationship between racism-related stress and psychological distress for Asian Americans; higher racism-related stress will lead to higher collectivistic coping which will in turn lead to lower psychological distress.

**Hypothesis V:** The magnitude of the effect of racism-related stress on psychological distress for Asian Americans will change depending on one's racial identity status attitudes, such that Asian Americans who have high conformity will experience less racism-related stress, which in turn is directly related to (low) psychological distress.

**Hypothesis VI:** The magnitude of the effect of racism-related stress on psychological distress for Asian Americans will change depending on one's racial identity status attitudes, such that Asian Americans who have high internalization will experience more racism-related stress, which in turn is directly related to (high) psychological distress.

**Hypothesis VII:** The magnitude of the effect of racism-related stress on psychological distress for Asian Americans will change depending on one's racial identity status attitudes, such that

Asian Americans who have high dissonance and high immersion will experience more racism-related stress, which in turn is directly related to (high) psychological distress.

## Chapter III

### Method

#### Participants

A total of 1,134 individuals logged on to the survey. Of the 1,134 participants, 866 individuals completed the study in its entirety and were included in the analysis. Additionally, the survey was set up to exclude 1<sup>st</sup> generation Asian immigrants from the study to account for variation of the term Asian American. For instance, an individual born in Korea, but raised in the United States since 13 years of age, may have obtained their citizenship and self-identify as Asian American. However, that person's experience with racism may be vastly different than a Korean American who was born in the U.S. given language, immigration transition, English as a second language (ESL) classes, etc.

Given that there must be sufficient power to test the predicted model, power analysis for SEM is based on the convention of obtaining a ratio of 5 to 10 participants for every free parameter in the model when there is a normal distribution of data (Bentler & Chou, 1987). The proposed model had 43 free parameters which means a minimum of 215 (i.e. five participants per parameter) participants are required if the data were normally distributed and ideally 430 participants (i.e. ten participants per parameter) if the data severely departed from normal. Thus, based on Bentler and Chou's recommendations the present study's sample size was within acceptable range.

#### Sample Characteristics

Eight hundred and sixty six adults participated in this study, 64.9% ( $n=562$ ) were female, 34.5% ( $n= 299$ ) male, and .6% ( $n=5$ ) individuals indicated "other," which included open

responses such as "genderqueer." Table 1 includes demographic data including participants' age range from 18 to 79 years with a mean age of 28.47 ( $SD=8.12$ ).

Table 1 also shows that participants represented 15 distinct self-reported ethnic groups with the largest group as being Chinese 27.7% ( $n=240$ ). The second largest group was Koreans 20.1% ( $n=174$ ), followed by Filipinos 11.3% ( $n=98$ ), Taiwanese 7.9% ( $n=68$ ), Hmong 6.8% ( $n=59$ ), Indian (South Asian) 6.2% ( $n=54$ ), Japanese 6.6% ( $n=57$ ), Vietnamese 5% ( $n=43$ ), Thai .8% ( $n=7$ ), Laotian .6% ( $n=5$ ), Malaysian .2% ( $n=2$ ), Native Hawaiian .3% ( $n=3$ ), Pakistani .3% ( $n=3$ ), Cambodian .1% ( $n=1$ ), Indonesian .1% ( $n=1$ ), and Other 5.9% ( $n=51$ ) (e.g. Japanese/Chinese, Chinese/Black, Korean/White, Vietnamese/Indian, and Native Hawaiian/Filipino). Given the small sample size of some groups (e.g. Cambodian, Indonesian, Laotian, Malaysian) participants' ethnic-based group memberships were condensed into 8 categories. Five of the groups remained unchanged: Chinese (27.7%), Korean (20.1%), Taiwanese (7.9%), Japanese (6.6%), and Other (5.9%). The ethnic groups with smaller numbers of respondents were added into the following categories creating three new groups: Filipino/Pacific Islander (11.7%), Southeast Asian (e.g. Cambodian, Hmong, Indonesian, Laotian) (8.7%), and South Asian (e.g. Indian, Pakistani).

A majority of participants were second generation Asian Americans (87.6%,  $n=759$ ) who were born and raised in the U.S. by immigrant parents. Participants who were third generation comprised 5.3% ( $n=46$ ) of the sample; fourth generation participants comprised 5.8% ( $n=50$ ) of the sample, fifth generation comprised .6% ( $n=5$ ) of the sample and .7% ( $n=6$ ) of the sample skipped this item.

Income was fairly well distributed across the sample with the highest percentage 18.9% ( $n=164$ ) of participants who reported a household income between \$0 and \$25,000/year;

followed closely by 17.8% ( $n=154$ ) who earned \$50,000 and \$75,000; 15.9% ( $n=138$ ) of the subjects who reported a household income between earned between \$25,000 and \$50,000/year; 15.2% ( $n=132$ ) earned between \$75,000 and \$100,000/year; 9.6% ( $n=83$ ) earned between \$100,000 and \$125,000/year; 6.5% ( $n=56$ ) participants earned above \$250,000/year; 4.2% ( $n=36$ ) earned between \$175,000 and \$200,000/year; 3.3% ( $n=29$ ) earned between \$150,000-\$175,000/year; 2.7% ( $n=23$ ) earned \$200,000 and \$225,000/year; .8% ( $n=7$ ) earned between \$225,000 and \$250,000/year; and 5.1% ( $n=4$ ) earned between \$125,000 and \$150,000/year. Again, all demographic information is included in Table 1.

Participants had a fairly high level of education. When asked to indicate the highest degree earned, the majority of respondents 45.2% ( $n=391$ ), earned a college degree, while a significant portion of the sample 28.2% ( $n=244$ ) earned a masters degree, followed by 13% ( $n=133$ ) who earned a doctorate or terminal degree and 13.6% ( $n=118$ ) had a highest degree of a high school diploma.

Participants varied in their religious self-designations and denominations. The participants identified themselves as predominantly Protestant Christian in their religious beliefs (31.6%,  $n=274$ ) followed by Catholic (13.2%,  $n=114$ ). Six other religions were identified including: Jain (1.5%), Buddhist (8%), Shaman (1%), Hindu (3.7%), Muslim (.5%), and Sikh (.3%). Additionally, 18.4% ( $n=159$ ) participants identified as non-religious, 10.5% ( $n=92$ ) identify as Agnostic, 6.9% ( $n=60$ ) identified as Atheist and 4.1% ( $n=36$ ) identified as "Other" (e.g. Mormon, Seventh Day Adventist, Ancestor Worship, Hawaiian Spirituality). See Table 1 for further detail.

Lastly participants represented every geographical area of the country, though the largest percentage of respondents 36.5% ( $n=316$ ) were from the Pacific (e.g. California, Hawaii, Nevada

and Arizona); 22.1% ( $n=191$ ) from the Northeast (e.g. New York, Vermont, New Hampshire, Rhode Island, Connecticut, Massachusetts, and Maine); 16.2% ( $n=140$ ) from the Great Lakes (e.g. Minnesota, Wisconsin, Illinois, Michigan, Indiana and Ohio); 12.2% ( $n=106$ ) from the Mid-Atlantic (Pennsylvania, New Jersey, Delaware, Maryland, West Virginia, Virginia); 3.8% ( $n=140$ ) from Pacific Alaska (Washington, Oregon, Idaho and Alaska); 2.8% ( $n=24$ ) from the Southwest (Texas, Oklahoma, Arkansas, and Louisiana); 2.3% ( $n=20$ ) from the Southeast (Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Alabama, Mississippi and Florida); 1.7% ( $n=15$ ) from the Central Plains (Nebraska, Missouri, Iowa, and Kansas); 1.6% ( $n=15$ ) from Other places outside the U.S. (e.g. Thailand, Hong Kong, Germany) and .8% ( $n=7$ ) from the Rocky Mountain region (Montana, North Dakota, South Dakota, Wyoming, Utah, Colorado and New Mexico).

## **Instruments**

**Personal demographic sheet.** Participants completed a self-reported demographic questionnaire with a series of questions about their personal and educational background including: age in years, race, gender, ethnic designation, socioeconomic status, religion, generational status, current city and state of residence and education level (or highest degree earned). In terms of generational status, participants were identified in the following way: (a) 2<sup>nd</sup> generation if the person was born in the United States with parents born outside the U.S., (b) 3<sup>rd</sup> generation if the person was born in the U.S. and parents were born in the U.S., (c) 4<sup>th</sup> generation if they, their parents and their grandparents were born in the U.S., and (d) 5<sup>th</sup> generation if their great grandparents and everyone after (including themselves) were born in the U.S.



**People of Color Racial Identity Attitudes Scale (POCRIAS).** The People of Color Racial Identity Attitudes Scale (POCRIAS; Helms, 1995) is a 50-items self-report scale designed to assess attitudes characteristic of racial identity statuses based on Helms' People of Color Racial Identity model (1995). The POCRIAS was developed for use with Asian American, Black American, American Indians and Latina/o individuals. The items are rated along a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The scores are determined by calculating the mean of each items ratings resulting in a range of scores from 1 to 5 on each scale. The higher the score is, the stronger the endorsement of that racial identity status' schemas by the participant. The POCRIAS contains four scales: (a) Conformity (10 items), (b) Dissonance (15 items), (c) Immersion-Emersion (13 items), and (d) Internalization (10 items). Example of items include: "I limit myself to White activities" (Conformity); "I am embarrassed about some of the things I feel about my people" (Dissonance); "I want to know more about my culture" (Immersion); and "People of my culture and White culture have much to learn from each other" (Internalization).

**Reliability and validity estimates.** Cronbach's alpha coefficients have been acceptable among Asian American participants. The scales, with Cronbach's alphas have been reported in research (Alvarez et al., 2006; Alvarez & Helms, 2001; Chen et al., 2006; Kokatsu et al., 2000) as: Conformity = .69 - .79, Dissonance = .72 - .79, Immersion/Resistance = .79 - .85, and Internalization = .61 - .82 For the current study, Cronbach alphas were as follows: Conformity = ( $\alpha = .72$ ), Dissonance = ( $\alpha = .78$ ), Immersion-Emersion = ( $\alpha = .78$ ), and Internalization = ( $\alpha = .68$ ).

With respect to construct validity of the POCRIAS with Asian American samples, various studies have shown that the POCRIAS was predictive of anxiety (Kokatsu, 1992),

perceptions of racism (Alvarez & Helms, 2001), gender role conflict (Liu, 2002), racial mistrust (Kohatsu, Dulay, Lam, Concepcion, Perez, Lopez & Eulen, 2000) and collective self-esteem (Alvarez & Helms, 2001). Consequently, the empirical evidence suggests that the POCRIAS is reliable and valid for use with Asian American samples.

*Exploratory Factor Analysis for the POCRIAS for current sample.* Based on a preliminary test of the measurement model (Figure 2), it was determined that the original scales of the POCRIAS were not good indicators of the proposed latent variable (racial identity attitudes). Therefore, an exploratory factor analysis was conducted to determine whether different item distributions would generate scales that would function as better indicators of the proposed latent variable in the SEM model.

For the current study, in order to elucidate and validate the factor structure of the instrument, all items were run through an exploratory factor analysis (EFA) for half the sample  $N = 433$  participants in the sample to test the validity of the scale within the sample. One of the most critical methodological decisions in the use of EFA is the number of factors to retain. Selecting both too few or too many factors have significant consequences for the reduction and interpretation of information in a data set (Hayton, Allen & Scarpello, 2004). There is evidence that parallel analysis (PA) (Horn, 1965) is one of the most accurate methods for determining the number of factors to retain.

Multiple criteria were used to determine the number of factors to extract (Kahn, 2006). These included Kaiser's (1960) criterion, Cattell's (1966) scree test, and parallel analysis (Horn, 1965). Theoretical consideration was also used in determining the number of factors to extract and explore. A Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was used to evaluate the data. The KMO index was .86, which indicated that the sample was appropriate for factor

analysis. Bartlett's test of sphericity was significant, which also indicated appropriateness for factor analysis.

PA involves the construction of a number of correlation matrices of random variables based on the same sample size and number of variables in the real data set. The average eigenvalues from the random correlation matrices are then compared to the eigenvalues from the real data correlation matrix, such that the first observed eigenvalue is compared to the first random eigenvalue, the second observed eigenvalue is compared to the second random eigenvalue, and so on. Factors corresponding to actual eigenvalues that are greater than the parallel average random eigenvalues should be retained. Thus, a factor that does not account for more variance than the parallel factor obtained from random numbers is not of interest (Hayton et al., 2004).

The case with oblique rotations allows correlation between factors. Underlying factors of the POCRIAS should be related given that racial identity exists through a profile vs. static statuses. Thus a principal components analysis with promax rotation was conducted on the initial pool of 50 items from the POCRIAS. The unrotated solution of the full sample yielded five factors with eigen values greater than 1.00 that accounted for approximately 44 percent of the variance. To confirm the number of factors to retain, a parallel analysis was performed. A randomly selected data set was created from the 433 participants. The process was repeated 50 times, which is recommended (Hayton et al., 2004) to have the most accurate final results. The average of the eigen values across the 50 sets was calculated. When comparing the eigen values from the actual data to those from the randomly generated data, there were five factors that were greater. This method has received considerable support as a means to identify the correct number of factors underlying different data sets (see Horn, 2004 for a description of this method).

Given the five-factor solution, an EFA was rerun with 5 fixed factors. The five factor solution accounted for approximately 44 percent of the variance. Subsequently, items with less than .35 loadings on one factor were omitted. In addition, items with greater than .15 cross-loadings were also omitted (e.g. “I am embarrassed about some of the things I feel about my people” loaded on factor 1 at .39 and on factor 2 at .48), which resulted in a 39 item scale. Principal components factor analysis was then conducted on the refined 39-item scale, using promax rotations of the data. Appendix A presents the five factors with their respective items, factor loadings, eigen values, variance accounted for, and coefficient alphas. The five-factor solution results in cronbach alphas as follows: Conformity = ( $\alpha = .76$ ), Dissonance = ( $\alpha = .78$ ), Resistance ( $\alpha = .77$ ) Immersion = ( $\alpha = .61$ ), and Internalization = ( $\alpha = .75$ ) shown in Table 3.

**Asian American Racism-Related Stress Index (AARRSI).** The Asian American Racism-Related Stress Index (AARRSI) (Liang et al., 2004), consists of 29-items divided into three subscales (a) *general experiences of racism* (i.e, ignorance of non-Asian Americans to the racial prejudice that Asian Americans have endured), (b) *socio-historical racism* (i.e, noticing that U.S. history books offer no information of the contributions of Asian Americans), and (c) *perpetual foreigner racism* (i.e, being asked where one is *really* from). Items on the AARRSI are placed in a 5-point Likert type format ranging from 1 (*not experiencing the event or knowing someone who experienced it*) to 5 (*knowing the event happened and being extremely upset by it*). Higher scores indicate more experiences with racism-related events and being more stressed by them.

**Reliability and validity estimates.** Liang et al. (2004) reported coefficient alphas of .95 for the total scale and alphas for each scale as follows .93 (Socio-historical racism), .88 (General

Racism), and .87 (Perpetual Foreigner Racism). For the current study, Cronbach alphas were as follows: Socio-historical racism = ( $\alpha = .88$ ); General Stereotype Racism = ( $\alpha = .79$ ) and Perpetual Foreigner Racism = ( $\alpha = .80$ ). Convergent validity for the AARRSI was established through positive correlations with the Minority Status Stress scale (Smedley, Myers, & Harrell, 1993), Schedule of Racist Events (Landrine & Klonoff, 1996), Perceived Racism Scale (McNeilly et al., 1996), and the Cultural Mistrust Inventory (Terrell & Terrell, 1981). Liang et al., (2004) provided further examinations of the instrument's test-retest reliability (two week period), concurrent, and discriminat validity provide preliminary evidence of the reliability and validity of the AARRSI.

**Collectivistic Coping Scale (CCS).** The Collectivistic Coping Scale (CCS; Yeh, Chang, Arora, Kim, & Xin, 2008), consists of 39-items using a 7-point Likert-type scale (1 = *not used*; 7 = *used a great deal*). The instrument has 7 scales including (a) *Respect for Authority*, an inclination to cope by relying on elders or authority figures in the community, (b) *Forbearance*, one's tendency for not sharing problems, willingness to sacrifice, and enduring in the face of adversity in order to maintain social harmony, (c) *Social Activity*, one's preference to cope through social supports, (d) *Intracultural Coping*, tendency to cope through support networks with others who are racially similar, (e) *Relational Universality*, seeking support from people who have experienced similar problems (f) *Fatalism* coping through acceptance of problems as predetermined or beyond one's power or control to change and, (g) *Family Support*, preference for coping talking with and help from family members. When constructing the scale, Yeh et al (2008) suggest that the use of a total score is not appropriate and the seven scales should be treated separately.

**Reliability and validity estimates.** Yeh et al., (2008) reported cronbach's alphas for each of the subscales are Respect for Authority ( $\alpha = .93$ ), Forbearance ( $\alpha = .89$ ), Social Activity ( $\alpha = .90$ ), Intracultural Coping ( $\alpha = .94$ ), Relational Universality ( $\alpha = .91$ ), Fatalism ( $\alpha = .80$ ), Family Support ( $\alpha = .88$ ). For the current study, Cronbach alphas were as follows: Respect for Authority ( $\alpha = .91$ ), Forbearance ( $\alpha = .92$ ), Social Activity ( $\alpha = .90$ ), Intracultural Coping ( $\alpha = .88$ ), Relational Universality ( $\alpha = .90$ ), Fatalism ( $\alpha = .85$ ), Family Support ( $\alpha = .88$ ).

Yeh et al. (2008) found convergent validity for scales of the CCS through positive correlations with several coping measures. The Respect for Authority scale was positively related to the Vertical Collectivism scales of the Individual-Collectivism Scale (Triandis, 1995); the Forbearance scale was positively related to the Self-Controlling subscales of the Ways of Coping Questionnaire- WCQ (Folkman & Lazarus, 1988); Social Activity was correlated with the Seek Social Support subscales of the WCQ; the Friends scales of the Multidimensional Scale of Perceived Social Support-MSPSS (Zimet, Dahlem, Zimet, and & Farley, 1988); Family Support was correlated with the Family subscale of the MSPSS; Fatalism was correlated with the Higher Power and the Wait on Luck subscales of the Harmony in Control Scale-HCS (Morling & Fiske, 1999). In addition, discriminant validity showed no correlation between CCS scales and the I-position of the Differential of Self Inventory-DSI (Skowron & Friedlander, 1998) and the Confrontative Coping subscale of the WCQ (Folkman & Lazarus, 1988).

**Exploratory Factor Analysis for CCS for current sample.** Similar to the POCRIAS instrument, based on a preliminary test of the measurement model (Figure 2), it was determined that the original scales of the CCS were not good indicators of the proposed latent variate (collectivistic coping). Therefore an exploratory factor analysis was conducted to determine whether different item distributions would generate scales that could function as better indicators

of the proposed latent variate in the SEM model. Since the CCS has not been used in a published empirical study exploratory factor analysis (EFA) was conducted to elucidate and validate the factor structure of the measure.

All items were run through an EFA for 433 participants in the sample to test the validity of the scale within the sample. The same criteria were used to determine the number of factors to extract (Kahn, 2006) for the POCRIAS measure. These included Kaiser's (1960) criterion, Cattell's (1966) scree test, and parallel analysis (Horn, 1965). Theoretical consideration was also used in determining the number of factors to extract and explore. A Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was used to evaluate the data. The KMO index was .95, which indicated that the sample was appropriate for factor analysis. Bartlett's test of sphericity was significant, which also indicated appropriateness for factor analysis.

Yeh et al. (2008) notes that the factors are related, but should be treated as separate factors. Thus, a principal components analysis with varimax rotation was conducted on the initial pool of 39 items from the CCS. The unrotated solution of the full sample yielded six factors with eigen values greater than 1.00 that accounted for approximately 72 percent of the variance. To confirm the number of factors to retain, a parallel analysis was performed. A randomly selected data set was created from the 433 participants. The process was repeated 50 times, which is recommended (Hayton et al., 2004) to have the most accurate final results. The average of the eigen values across the 50 sets was calculated. When comparing the eigenvalues from the actual data to those from the randomly generated data, there were five factors that were greater. This method has received considerable support as a means to identify the correct number of factors underlying different data sets (see Horn, 2004 for a description of this method).

Given the five-factor solution, an EFA was rerun with 5 fixed factors on the pool of 39 items. The five factor solution provided the cleanest factor structure and accounted for approximately 69 percent of the variance. Subsequently, items with less than .35 loadings on one factor were omitted. In addition, items with greater than .15 cross-loadings were also omitted, which resulted in a 38 item scale. Principal components factor analysis was then conducted on the refined 38-item scale, using promax rotations of the data. Appendix B presents the five factors with their respective items, factor loadings, eigen values, variance accounted for, and coefficient alphas. The five-factor solution results in cronbach alphas as follows: Forbearing and Faith ( $\alpha = .92$ ), Seeking Racial-Cultural Support ( $\alpha = .94$ ), Socializing with Friends ( $\alpha = .91$ ), Seeking Elder/Mentor support ( $\alpha = .91$ ), and Family Support ( $\alpha = .88$ ). The five-factor solution scales were used in the current study's analysis (see Chapter 4).

The five-factor solution conceptually combined Forbearance and Fatalism to create "Forbearance and Faith". This subscale includes items such as, "I kept things to myself so I would not worry others" and "I believed things would eventually work themselves out." Additionally, the five-factor solution conceptually combined Relative Universality and Intercultural Coping. Thus, the subscale "Racial-Cultural support" included items such as, "Sought out a member of my racial/cultural group" and "sought out people who could identify with my struggle." Items from the original scale in the Social Activity subscale (i.e. Spend more time doing activities with my friends, Interacted more with my friends) were combined with one item from Relative Universality, "Found comfort in being with people." Two subscales remained unchanged, Family Support and Respect for Authority, which was re-named, "Elder/Mentor support."



**Brief Symptom Inventory (BSI).** The Brief Symptom Inventory (BSI; Derogatis, 1993) is a shortened version of the Symptoms Checklist-90-Revised (SCL-90-R), is a 53-item 4-point Likert-type scale from 0 (*not at all*) to 4 (*extremely*). The BSI assesses psychological distress across the dimensions of somatization (7 items), obsessive-compulsivity (6 items), interpersonal sensitivity (4 items), depression (6 items), anxiety (6 items), hostility (5 items), phobic anxiety (5 items), paranoid ideation (5 items), and psychoticism (5 items). Participants indicate the extent to which they experience symptoms such as “the idea that something is wrong with your mind” or “feeling easily annoyed or irritated.” Scores are summed across all 53 items to obtain a General Severity Index (GSI) that can range from 0 to 4.

**Reliability and validity estimates.** The BSI has also been found to be a valid and reliable instrument on previous research studies in Asian American populations (Iwamasa & Kooreman, 1995; Loo et al., 2001; Cheng, 1993; Watson & Sinha, 1993). Derogatis (1993) reported a 2-week test-retest reliability of .90 for the GSI on the nonclinical adult normative sample. Cronbach’s Alphas reported Iwamasa & Kooreman (1995) on an Asian American sample for each of the subscales were as follows Somatization ( $\alpha = .79$ ), Obsessive-Compulsive ( $\alpha = .78$ ), Interpersonal Sensitivity ( $\alpha = .77$ ), Depression ( $\alpha = .88$ ), Anxiety ( $\alpha = .79$ ), Hostility ( $\alpha = .80$ ), Phobic Anxiety ( $\alpha = .60$ ), Paranoid Ideation ( $\alpha = .71$ ), and Psychoticism ( $\alpha = .64$ ). In terms of validity, Derogatis reported high convergence between the dimensions of BSI and corresponding Minnesota Multiphasic Personality Inventory (MMPI) and SCL-90-R scales.

**Exploratory Factor Analysis for BSI for current study.** Based on a preliminary test of the measurement model (Figure 2), it was determined that the original scales of the BSI were not good indicators of the proposed latent variate (psychological distress). Therefore an exploratory factor analysis was conducted to determine whether different item distributions would generate

scales that could function as better indicators of the proposed latent variate in the SEM model. An exploratory factor analysis (EFA) was conducted, using a subset of 433 participants in the sample to test whether the items generated scales that functioned as adequate indicators within the sample. The same criteria as the POCRIAS and the CCS were used to determine the number of factors to extract (Kahn, 2006) for the BSI measure. These included Kaiser's (1960) criterion, Cattell's (1966) scree test, and parallel analysis (Horn, 1965). A Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was used to evaluate the data. The KMO index was .94, which indicated that the sample was appropriate for factor analysis. Bartlett's test of sphericity was significant, which also indicated appropriateness for factor analysis.

A principal components analysis with promax rotation was conducted on the initial pool of 53 items from the BSI. The unrotated solution of the full sample yielded ten factors with eigen values greater than 1.00 that accounted for approximately 66 percent of the variance. To confirm the number of factors to retain, a parallel analysis was performed. A randomly selected data set was created from the 433 participants. The process was repeated 50 times and the average of the eigen values across the 50 sets was calculated. When comparing the eigenvalues from the actual data to those from the randomly generated data, there were four factors that were greater.

Given the four-factor solution, an EFA was rerun with 4 fixed factors on the pool of 53 items. The four factor solution provided the cleanest factor structure and accounted for approximately 55 percent of the variance. Subsequently, items with less than .35 loadings on one factor were omitted. In addition, items with greater than .15 cross-loadings were also omitted, which resulted in a 39 item scale. Principal components factor analysis was then conducted on the refined 39-item scale, using promax rotations of the data. Appendix C presents the four factors with their respective items, factor loadings, eigen values, variance accounted for, and

coefficient alphas. The four-factor solution results in cronbach alphas as follows: Defensive Paranoia ( $\alpha = .90$ ), Depression ( $\alpha = .90$ ), Anxiety ( $\alpha = .85$ ), and Hostility ( $\alpha = .79$ ).

## **Procedure**

### **Data Collection**

Approval to begin the study was first sought from the Teachers College, Columbia University Institutional Review Board (IRB). After approval was received, participants were recruited via online sampling. Despite questions regarding the exclusion of participants based on access and socio-economic status, Internet samples are shown to be relatively diverse with respect to socioeconomic status, geographic region and age. Gosling, Vazire, Sirvastava & John (2004) conducted a comparative analysis of paper and pencil methods with the Internet and found, Internet findings generalize across presentation formats, are not adversely affected by non-serious or repeat responders, and are consistent with findings from traditional methods. Moreover, Meyerson & Tryon (2003) tested the psychometric equivalence of Internet and in-person samples finding overall Internet samples yielded reliability coefficients almost identity to those of a previously published study, in addition, the method was found to be valid and reasonably representative.

Participants were solicited by sending e-mail announcements to list-serves of various organizations (e.g. Asian American Psychological Association, Asian Americans in Higher Education,) throughout the country which then snowballed to other listservs (e.g. Angry Asian Male). The announcement provided potential participants with the web address where the study was assessed. The announcement also requested that the information about the study be passed on to others; which was intended to create a snowball sampling effect. The first page of the Web-

based study included a consent form (Appendix D and E), which informed participants of their rights, including the right to withdraw from the study at any time. Once the person agreed to participate, they were directed to the demographics questions, followed by the AARRSI, followed by the POCRIAS, the BSI, the CCS (Forbearance and Intracultural Coping subscales) and finally a briefing form, which included resources for those participants who wanted further assistance with their experiences (see Appendix F to I).

## **Data Analysis**

### **Structural Equation Modeling**

The following research questions were examined in the current study (a) Does racism-related stress predict psychological distress? (b) Does racism-related stress predict collectivistic coping? (c) Does collectivistic coping predict psychological distress? (d) Does collectivistic coping mediate the relationship between racism-related stress and psychological distress? (e) Do racial identity status attitudes moderate the relationship between racism-related stress and psychological distress (Structural Model B)? All research questions were examined through Structural Equation Modeling (SEM) analyses using MPlus, 5.1 except (e) which was analyzed using Path Analysis.

Structural equation modeling (SEM) is intended for this study to shed light on the rationality of Lazarus and Folkman's (1984) Stress and Coping model based on priori hypotheses (Kline, 2005). SEM was chosen as the main analysis of the current study and provides a powerful tool in evaluating relationships among variables (Bryne, 2001; Kline, 2005). It is also a confirmatory procedure which has several advantages when compared to alternative statistical analyses, such as a multiple regression or path analysis. Additionally, it reduces measurement

error by testing relationships among variables at a construct or latent level (i.e. unobserved) and not at an observed level (i.e. measured).

SEM has two primary steps derived from a combination of path analysis and factor analysis. The first step consists of validating the measurement model which is accomplished primarily through confirmatory factor analysis and is crucial in SEM. Although it is common practice to solve both the measurement and structural models simultaneously, Joreskog (1993) firmly states that testing the structural model is meaningless if the measurement model is inaccurate. The measurement model consists of the unobserved variables (e.g. latent variables) and the multiple indicators (e.g. observed variables) in order to establish whether they are adequate observed measures for the corresponding latent variables. Therefore the measurement model describes the relationship between measured indicators (e.g., Asian American Racism Related Stress Index scales) and the unobserved latent variable. Thus, the measured indicators were hypothesized to predict the latent variable called, Racism-Related Stress.

The second step involves the testing for fit for the structural model which is primarily accomplished through path analysis with latent variables. The structural model defines the theoretical relationships between the latent variables while the measurement model examines the relationship between the observed variables and the scales they measure (Kline, 2005; Bryne, 2001).

For each model, circles represent latent variable and squares represent measured variables, called indicators. Solid lines indicate expected significant positive associations. Racism-related stress is a continuous latent variable with three indicators; collectivistic coping is a continuous latent variable with seven indicators, and psychological distress is a continuous latent variable with nine indicators. Structural equation modeling requires the researcher to

specify the relationships that exist or do not exist among the variables. This specification is called model identification.

### **Overview of Theoretical Model Examined**

The aforementioned instruments were used to test and expand the theory of Stress and Coping proposed by Lazarus & Folkman (1984). Figure 1 illustrates the Proposed Structural Model.

Racism-Related Stress was hypothesized to be an unobserved latent variable predicted by three measured indicators (i.e. subscales: Socio-Historical Racism, General Stereotype Racism, and Perpetual Foreigner Racism) of the Asian American Racism Related Stress Index (AARRSI; Liang et al., 2004). The measured indicators were hypothesized to be positively correlated among each other and have a positive relationship with the unobserved construct of racism-related stress. Therefore, an increase in the measured indicators would predict the unobserved construct of racism-related stress defined as experiencing racial prejudice, systemically feeling oppressed because of one's race and being treated like a foreigner or as non-American.

Collectivistic Coping was hypothesized to be a second unobserved construct (e.g., latent variable) predicted by seven measured indicators (e.g. scales: respect for authority, forbearance, social activity, intracultural coping, relative universality, fatalism and family) of the Collectivistic Coping Scale (CCS; Yeh et al., 2008). The measured indicators were hypothesized to be positively correlated to each other and to have a positive relationship with the unobserved construct of collectivistic coping. Therefore, a positive correlation between the indicators would predict the latent variable (collectivistic coping), defined as coping (with stress) through support by one's collective community. The Collectivistic Coping Scale was used because the instrument

captures culturally-valid forms of coping, such as family support, forbearance and fatalism that are grounded in collectivistic purposes.

Psychological Distress was hypothesized to be a third unobserved construct (e.g. latent variable) predicted by nine measured indicators (e.g. scales: somatization, interpersonal sensitivity, depression, anxiety, phobic anxiety, paranoia, obsessive compulsion, hostility, and psychoticism) from the Brief Symptom Inventory scale (BSI; Derogatis, 1993).

The latent variables that were not directly measured (i.e. racism-related stress and collectivistic coping) were hypothesized to be positively correlated to each other. Collectivistic coping was hypothesized to be inversely related to the latent variable of psychological distress itself from the BSI (Derogatis, 1993).

### **Overview of Measurement Model**

Figure 2 illustrates the Measurement Model which tests the relationships of the observed measured indicators to the latent variables. The measurement model tests the correlations between the latent variables, and the correlations among the errors associated with the observed indicators (Kline, 2005). For example, Respect for Authority, Forbearance, Social Activity, Relative Universality, Intercultural Coping, Fatalism and Family Support are indicator variables (i.e. pictorially depicted as rectangles) hypothesized to measure the proposed latent variable of collectivistic coping.

### **Overview of Structural Model A**

As previously noted, the second step in Structural Equation Modeling involves testing the structural model for fit, which is primarily accomplished through path analysis with the latent variable. For the purpose of testing and expanding Lazarus and Folkman's (1984) model, the

current study's Proposed Structural Model A, depicted in Figure 1, and consisted of the following latent variables: Asian American Racism-Related Stress, Collectivistic Coping and Psychological Distress. The strength of all hypothesized relationships between the latent variable in the structural model were addressed. Through the structural model tests, the direct effects from one latent variable to another (i.e. Racism-Related Stress to Psychological Distress) and the indirect effect of one construct to another through mediating variables (i.e. Collectivistic Coping) were assessed. More specifically the proposed structural model examined whether Collectivistic Coping explains the relationship between Racism-Related Stress and Psychological Distress. Testing the structural model is done by using path coefficients to provide estimates of the strength of all the hypothesized relationship in the structural model. This testing also determines if the predictor variables contribute significantly to the model, and if so, how much of the variance in the outcome variable is explained (Kline, 2005).

### **Overview of Path Model B**

The final procedure was a second Structural Model B, which is depicted in Figure 5. Path Model B was conducted to examine the moderating effect of racial identity on the relationship between racism-related stress and its presumed influence on psychological distress. This model was not an extension of the theoretical model of stress and coping, but rather a test of an alternative a-priori hypothesis. Through the path model tests, the direct effects from one latent variable to another (i.e. Racism-Related Stress to Psychological Distress) and the indirect effect of one latent variable to another through a moderating variables (i.e. Racial Identity) were assessed. More specifically, the proposed path model examined whether the relationship between



Racism-Related Stress and Psychological Distress is only a significant predictor for participants of certain Racial Identity Status Attitudes.

### **Model Fit Indexes**

Both the measurement and structural models are tested for “goodness of fit” to determine how well the hypothesized model “fits” the observed, sample data. Many fit indices are based on chi-square estimates. The chi-square statistic tests the null hypothesis that “there is no significant difference between the proposed and observed covariance matrix.” SEM contradicts most statistical analysis in that the research does *not* want to reject the null hypothesis, but instead wants to accept it. A significant  $\chi^2$  result would seem to indicate that the model does NOT fit, and that there are differences between the specified model and the study data. However, there are a number of limitations associated with the chi-square index, with the most important being the fact that this statistical test is very sample-size dependent (Ullman, 2001). Large samples can make trivial differences between sample and hypothesized covariance matrices statistically significant (Kline, 2005). With a sample size of (N=866) in the current study, a number of fit indices were used to assess how well the data fit the proposed model.

The use of multiple fit indices assures rigor in empirical assessment and descriptions of structural equation models (Kline, 2005). Thompson and Daniel (1996) suggest that several other fit indices be utilized to determine how well the hypothesized theoretical model fits the data sample used in a study. The first is the Chi-square degrees of freedom ratio (CMIN/DF), which tries to correct for the chi square sensitivity to large sample size by dividing by its degrees of freedom. CMIN/df creates a ratio of chi square to degree of freedom, in this situation an ideal fit

would be one (1). Therefore  $CMI/df$  values between 2 to 5 are considered reasonable estimates of fit with values greater than 5 deemed unacceptable.

The second is Bentler's Comparative Fit Index (CFI), which is a goodness of fit measure that compares how well the hypothesized model fits as compared to the null model. The CFI was developed to take sample size into account with values ranging from zero to one, where values of .95 indicate a very good fit, and indicate that the relative overall fit of the researcher's model is 95% better than that of the null model. Observed CFI values can be as low as .90 but ideally should be higher than .95 (Kline, 2005).

Also used in the current study as an adjusted fit indices is the Root Mean Square Error of Approximation (RMSEA). It indicates the discrepancy in fit per degree of freedom and thus "adjusts" for sample size.  $RMSEA < .05$  indicates good fit; values between .05 to .08, indicate acceptable or fair fit; values between .08 and .10 indicate mediocre fit; and values greater than .10 indicate poor fit (Byrne, 2001; Kline, 2005). The 90% confidence interval of the RMSEA index is also reported if the RMSEA is smaller than .08 or if the left endpoint of the confidence interval is markedly smaller than .08, then the model is considered to provide a reasonable approximation of the data. Lastly, the Standardized Root Mean Square Residual (SRMR) with values less than .10 are also a good fit.

## Chapter IV

### Results

#### **Preliminary Analysis**

Preliminary analysis included checking for missing data, outliers, and assumptions of causal models. Missing data included participants who did not fill out the survey in its entirety. The study data assessed for both univariate and multivariate outliers. Multivariate normality is a common assumption in the data of SEM. It means that all univariate distributions are normal, that the linear combinations of the variables are normal and that all bivariate scatterplots are linear and homoscedastic (Kline, 2005). Appendix J depicts the normality statistics for all variables and indicates that while some variables had a skew or kurtosis on the borderline, they were appropriate for the sample.

#### **Descriptive Statistics**

The descriptive statistics for the overall sample are presented in Table 2, which shows the means, standard deviations, range, and alphas of the three AARRSI subscales, the seven CCS subscales, the nine BSI subscales and the four subscales of the POCRIAS.

A Multiple Analysis of Variance (MANOVA) analyses was conducted to determine whether statistically significant differences in model variables (Socio-Historical Racism, General Stereotype Racism, Perpetual Foreigner Racism, Respect Authority, Forbearance, Social Activity, Intracultural Coping, Relative Universality, Fatalism, Family, Conformity, Dissonance, Resistance, Internalization, Somatization, Interpersonal Sensitivity, Depression, Anxiety, Phobic Anxiety, Paranoia, Obsessive Compulsion, Hostility and Psychoticism) were present among ethnic-based groups within the sample. Using Wilks's statistic, which indicates the unexplained

variance on each variate, there was a significant effect for ethnic group differences for Asian Americans ( $\Lambda = .643$ ,  $F(184, 6350) = 2.06$ ,  $p < .000$ ,  $\eta^2 = .054$ ). Table 4 shows the MANOVAS for ethnicity and each instrument.

Appendices K - N present a breakdown of the mean and standard deviation scores on the each of the instruments by ethnic group. Post hoc comparisons employed the Games Howell test statistic because it takes into account unequal group sizes, and were used to identify where there significant differences between ethnic groups and variables. As noted in Appendices K - N, the MANOVAs showed significant differences by ethnicity for each variable except: Perpetual Foreigner Racism and Interpersonal Sensitivity.

Table 5 shows the interscale correlations between all model variables (e.g. Socio-Historical Racism, General Stereotype Racism, Perpetual Foreigner Racism, Respect Authority, Forbearance, Social Activity, Intracultural Coping, Relative Universality, Fatalism, Family, Conformity, Dissonance, Resistance, Internalization, Somatization, Interpersonal Sensitivity, Depression, Anxiety, Phobic Anxiety, Paranoia, Obsessive Compulsion, Hostility and Psychoticism). Due to the high level of intercorrelation in the Collectivistic Coping scale, particularly with Elder/Mentor Support with Family support; as well as Racial-Cultural support with Friend Support, subsequent analysis in SEM established covariance between the aforementioned variables. Table 6 shows the interscale correlations between the best-fitting model variables.

### **Structural Equation Modeling Results**

The results will be organized in the following manner 1) Proposed Measurement Model results (relationship of indicators to latent variables), 2) Alternate Measurement Model results 3)

Structural Model A results (relationships among latent variables), 4) Structural Model B results and 4) a summary of the findings as they relate to the original theoretical and empirical hypotheses.

### **Proposed Measurement Model**

The measurement model was tested first to ensure its validity prior to evaluating the structural model (Bryne, 2001). The measurement model tested is comprised of three latent variables, together with the indicator variable loadings and the correlations between the variables, is depicted in Figure 1. Confirmatory factor analysis (CFA) was used to test the fit of the proposed measurement model. The findings pertaining to the correlations between the latent variables as well as whether the observed indicators measured the latent variables they were hypothesized to measure are presented in the section that follows.

The results of the measurement model was compared with fit indices as described in Chapter 3 ( $\chi^2$  with df and corresponding p value; CMIN/df; CFI, RMSEA, and SRMR). Although parameter adequacy was evaluated, the crucial factor in evaluating the measurement model is to determine the factor loadings of the scales and the overall fit of the model. The strength of the factor loadings provides evidence of the reliability of the observed indicators to measure the underlying factor.

With respect to the goodness-of-fit indices for the CFA measurement model with correlation of the latent variables, they indicate that the confirmatory factor analysis model does not fit the data well. Specifically, the model chi-square statistic is statistically significant  $\chi^2$  (149,  $N=866$ ) = 1768.310,  $p<.000$ , indicating that this model does not reproduce the observed

covariances well. In addition, the Comparative Fit Index (CFI) is .838 and the CMIN/df = 11.86, both of which are below the recommended cut-offs.

As seen in Table 7, all of the maximum likelihood estimates of the factor loadings, (i.e., the unstandardized factor loadings) are statistically significant. In addition, all of the standardized factor loadings are well above the commonly used standards .30 or .40 (Kline, 2005), with the exception of “Family”. In substantive terms, these findings indicate that all of the observed indicators are not all well related to the latent variables that they are presumed to measure. The correlations between the latent variables are consistent with the proposed hypothesis. Specifically, Hypothesis 1 predicted that higher racism-related stress would be associated with greater psychological distress. The data supports this claim. That is, the correlation between these two latent variables ( $r = .17, p < .00$ ) of little strength, suggests that higher racism-related stress was slightly associated with greater psychological distress for Asian Americans.

In addition, there was a significant association ( $r = .45, p < .00$ ) between racism-related stress and collectivistic coping of moderate strength. Thus, for Hypothesis 2, the higher the magnitude of racism-related stress experienced for Asian Americans, the more collectivistic coping they employed. Lastly, with regard to collectivistic coping, Hypothesis 3 was also not supported such that higher collectivistic coping was associated with higher lower psychological distress ( $r = .24, p < .00$ ).

However, given that the Proposed Measurement Model (as seen in Figure 1) was not a good fit. Therefore, the hypothesized model could not be established. Based on factor loadings of SEM, an alternative model was considered.

### **Alternate Measurement Model**

The alternate model consisted of two data driven latent factors, as revealed in the principal components factor analysis (see Appendix B and C for review). Thus, a confirmatory factor analysis was conducted on an alternative fitting measurement model, which included a five-factor (as opposed to a seven-factor) CCS as well as a four-factor (as opposed to nine-factor) BSI. Figure 3 presents the measurement model underlying the causal model presented in Figure 4.

### **Best-Fitting Measurement Model, Five-factor CCS; Four-factor BSI**

Given the significant factor loadings for the re-specified measurement models for CCS and BSI, a full re-specified Best-Fitting Measurement Model was run. With respect to goodness-of-fit indices for the overall Confirmatory Factor Analysis Results as seen in Figure 3, they indicate that the model fits the data moderately well. Specifically, the model chi-square statistic is statistically significant  $\chi^2(49) = 290.016, p < .000$ . However, the CMIN/df is 5.91, which is considered at the lower-end of acceptable. Additionally, the CFI = .952, along with the RMSEA = .076 both meet the cut-off criteria for a good fit at .95 and .08. Lastly, the SRMR = .04 is also less than .10, which indicates a good fit. Results are shown in Table 9.

As seen in Table 7, all of the maximum likelihood estimates of the factor loadings (i.e., the unstandardized factor loadings) are statistically significant. In addition, all of the standardized factor loadings are well above the commonly used standards .30 or .40 (Klien, 2005). In substantive terms, these findings indicate that all of the observed indicators are well related to the latent variables that they are presumed to measure. The correlations between the latent variables are consistent with the proposed hypothesis. Specifically, *Hypothesis 1 predicted that higher*

*racism-related stress would be associated with greater psychological distress.* The data supports this claim. That is, the correlation between these two latent variables ( $r = .18, p < .00$ ) of little strength, suggests that higher racism-related stress was slightly associated with greater psychological distress for Asian Americans.

In addition, there was a significant association ( $r = .44, p < .00$ ) between racism-related stress and collectivistic coping. Thus, for *Hypothesis 2, the higher the magnitude of racism-related stress experienced for Asian Americans, the more collectivistic coping they employed* was supported by the data. Lastly, with regard to collectivistic coping, *Hypothesis 3 was also supported such that higher collectivistic coping was associated with lower psychological distress* ( $r = .26, p < .00$ ). Based on these results, the re-specified measurement model was deemed to accurately reflect the latent variables in the study.

#### **Best-Fitting Structural Model, Five-factor CCS; Four-factor BSI.**

The proposed model described relationships to be tested among its three latent variables. Three direct paths were hypothesized to exist between: 1) racism-related stress and psychological distress (hypothesis 1); 2) racism-related stress and collectivistic coping (hypothesis 2); and 3) collectivistic coping and psychological distress (hypothesis 3). Indirect paths also were tested. Indirect paths were postulated such that collectivistic coping mediates the relationship between racism-related stress and psychological distress (hypothesis 4).

#### **Best-Fitting Structural Model: Model A**

Figure 4 presents the proposed structural model with the five-factor CCS and four-factor BSI. With respect to the fit of this model, the model chi-square statistic indicates that the



observed covariances and the model revealed a fairly satisfactory level of fit. Analysis of the overall fit of Model A revealed a poor level of fit:  $\chi^2 (49, N=866) = 290.016, p < .000$ .

Again however, because finding a statistically significant model chi-square is fairly common in large sample sizes, other goodness-of-fit indices are reported. One of those other indices, still based on the model chi-square, is a “normalized” version of this statistic (i.e.  $\chi^2 / df$ ), which in this case equals 5.91. Although the interpretive standards for this statistic vary, values less than 2 or 3 are taken to be indicative of a reasonably good fitting model (Kline, 2005) though upwards of 5 are acceptable. Alternative indices however indicated a good fit including the Comparative Fit Index (CFI) = .952; and a Root Mean Square Error of Approximation RMSEA = .076 (CI = .067 – .084) meeting the cutoff for a fair fit. Lastly, the Standardized Root Mean Square Residual (SRMR) = .040, which fits the criteria of less than .10 for a good fit.

The direct effects in the path diagram (i.e., the “path coefficients”), are presented in Table 8, as they related to the a priori hypothesis.

***Hypothesis 1: Higher racism-related stress will be positively predictive of higher psychological distress for Asian Americans.*** The direct effect from racism-related stress (AARRSI) to psychological Distress is consistent with theoretical expectation (Hypothesis 1). That is to say, the more Asian Americans experience racism-related stress, the more psychological distress they would experience, albeit weakly ( $\beta = .09, p < .00$ ).

***Hypothesis II: Higher racism-related stress will be positively predictive of more collectivistic coping for Asian Americans.*** The path from racism-related stress to collectivistic coping also supports the second hypothesis. Specifically, Asian Americans who experience racism-related stress report higher collectivistic coping ( $\beta = .44, p < .00$ ).

***Hypothesis III: Higher collectivistic coping will be negatively predictive of more psychological distress for Asian Americans.*** The third path in the presumptive causal chain is inconsistent with Hypothesis 3. That is, reports of greater collectivistic coping are in fact, predictive of reports of psychological distress ( $\beta = .22, p < .00$ ).

### **Mediation Results According to Research Hypotheses**

***Hypothesis III: Higher collectivistic coping will be negatively predictive of more psychological distress for Asian Americans.*** After collectivistic coping was added to the model → the data does not support this hypothesis; the relationship between collectivistic coping and psychological distress positively was significant ( $\beta = .21, p < .00$ ).

According to the analysis, coping does mediate the relationship between racism-related stress and psychological distress. That is, the direct effects increased following the addition of the mediating variable to the model. Another words, collectivistic coping as a mediator weakened the relationship from racism-related stress and psychological distress from ( $\beta = .09, p < .00$ ) to ( $\beta = .09, p < .00$ ).

### **Racial Identity as a Moderator: Path Analysis**

Since racial identity was measured separately as a moderator and was not part of a structural model, it was analyzed through path analysis. The total score for racism-related stress was computed by summing the 39-items of the Asian American Racism Related Stress Index. Similarly, a total score was computed for psychological distress by summing the 39-items from the best fitting measurement model from the Brief Symptom Inventory.

*Hypothesis V: The magnitude of the effect of racism-related stress on psychological distress for Asian Americans will change depending on one's racial identity status attitudes, such that Asian Americans who have high Conformity will experience less racism-related stress, which in turn is directly related to (low) psychological distress.* A significant relationship was not found between higher conformity and Dissonance statuses taken together and racism-related stress for Asian Americans ( $\beta = .20, p < .00$ ). There were no direct effects between racism-related stress and psychological distress found. In other words, racism-related stress does not account for much of the variation in distress. Similarly, there were no significant indirect effects found where any of the racial identity status attitudes (Conformity, Dissonance, Immersion, Resistance and Internalization) moderated the relationship between racism-related stress and psychological distress.

The direct and indirect effects in the path diagram (i.e., the “path coefficients”), are presented in Table 11, as they related to the a priori hypothesis.

### **Coping as a Moderator**

There have been conceptual differences in understanding the impact of coping through moderator (Noh et al., 1999; Wei et al., 2008; Wei et al., 2010) versus mediator models (Liang et al., 2007; Alvarez & Juang, 2010). The goal of the current study was to explore Lazarus & Folkman's (1984) theoretically and empirically grounded model of stress and coping (Figure 4). However, because Lazarus and Folkman's model is based in individualistic cultures where people cope with problems and stressors by using approach coping, taking direct action, confronting others and speaking up in order to defend oneself (Yeh et al., 2006), perhaps the model itself is flawed.

However, given that prior research on racial discrimination and Asian Americans has focused on a moderator perspective on coping, the present study conducted a post-analysis to explore coping as a moderator to explore if the relationships changed across groups.

A total score for collectivistic coping was computed (using sum scores). The frequency of the total score broke down into percentiles of 25%, 50% and 75%. The data (N=866) was then divided into three groups of low coping (N=207), medium coping (N=415) and high coping (N=227). According to the percentiles, low coping was categories as a sum score of > 25, medium coping as \*\*\*. Thus, three separate models were run.

With respect to the fit of the “Low coping” model, the model chi-square statistic indicates that the observed covariances in the model revealed a fairly satisfactory level of fit:  $\chi^2$  (13, N=207) = 39.309,  $p < .0002$ , CMIN/df = 3.02, CFI = .945, RMSEA = .09 (CI = .064 - .135) and SRMR = .048. The model for “medium coping” demonstrated a poor fit to the data  $\chi^2$  (13, N=415) = 36.108,  $p < .0006$ , CMIN/df = 2.77, CFI = .983, RMSEA = .065 (CI = .041 - .091), and SRMR = .024. Lastly, the model fit for “high coping” also indicated a poor fit  $\chi^2$  (13, N=227) = 13.511,  $p < .409$ , CMIN/df = 1.04, CFI = .99, RMSEA = .013 (CI = .000 - .068), and SRMR = .029. Thus, collectivistic coping does not moderate the relationship between racism-related stress and psychological distress.

Overall the results both support and do not support the priori hypothesis of the study in the relationships between racism-related stress, collectivistic coping, psychological distress and racial identity status attitudes. SEM modification indices revealed several suggestions regarding modifications that could be made to the existing model of Stress and Coping to improve the fit of this study’s data. However, several researchers caution against post hoc model modifications.

Once the researcher begins to modify parameters, the analysis becomes exploratory in nature and no longer confirmatory. The implications of these results are discussed in the next chapter.

## Chapter V

### Discussion

In psychological literature, Lazarus and Folkman's (1984) model of stress and coping has become the predominant framework in studying the effects of stress. They propose a relational or transactional model of stress between the person and the environment. In their model, psychological stress occurs when individuals access personal or social resources to respond to an event and these resources are insufficient to address the event. An individual alters circumstances or how they are interpreted to make them appear more favorable in a process called coping. When an effort to cope with stress fails, stress reactions increase in intensity, which can be harmful (Lazarus & Folkman, 1984).

One of the criticisms of the model of stress and coping (Lazarus & Folkman, 1984) is its lack of racial-cultural saliency. Slavin et al. (1991), Harrell (2000) and Clark et al. (1999) began to extend Lazarus and Folkman's (1984) model to contend that racism, which has been identified as a chronic stressor, operates as a racism-related stressor. Racism-related stress can in turn result in negative psychological outcomes or psychological distress. Comas Diaz (1994) adds that it is important to consider how the psychological impact of racism-related stress may be understood differently depending on one's racial group membership. For instance, the manner in which African Americans experience racism, as well as the stress experienced as a result of racism, is different from Asian Americans. In fact, Carter et al. (2005) found that members of different racial groups like Asian Americans experience racial discrimination and harassment distinctly from one another.

Another aspect of Lazarus and Folkman's (1984) model which has received criticism is that the foundation of their conceptualization and subsequent findings are based on White

Americans participants, using theories derived from an individualist cultural perspective (Bjorck, Cuthbertson, Thurman, & Lee, 2001; Dunahoo, Hobfoll, Monier, Hulsizer, & Johnson, 1998; Chang, Tugade & Asakawa, 2005; Yeh et al., 2006). The prevailing assumption in past research on stress and coping is that individuals cope in order to address their *own* needs and their *own* psychological distress (Chung et al., 2005). The American culture-worldview is based in individualistic principles of self, where people cope with problems and stressors by using approach coping, taking direct action, confronting others and speaking up in order to defend *oneself* (Yeh et al., 2006).

There have been mixed findings about which coping strategy (emotion-focused vs. problem-focused coping) is more effective in producing adaptive outcomes (Lazarus, 2006). While it remains unclear as to what constitutes the most effective coping strategies, there seems to be strong support that the greater use of emotion-focused coping (e.g., escape-avoidance and distancing) is associated with high levels of psychological distress (Zeidner & Saklofske, 1996). On the other hand, a utilization of problem-focused coping (e.g., active problem solving and seeking social support) has been positively associated with lower levels of depression and distress (Folkman, Lazarus, Gruen & DeLongis, 1986). Research findings show that Asian Americans tend to use emotion-focused or avoidance-oriented coping when addressing racial stressors which are associated with decreased mental health (Lazarus & Folkman, 1984; Seiffge-Krenke, 1993; Holahan, Valentiner & Moos, 1995; Austenfeld & Standon, 2004; Folkman & Moskowitz, 2004). While the individualistic cultural perspective has empirical evidence, it is problematic to people who live by other cultural patterns. The individualistic perspective stems from the assumption that approach coping is the only coping method that is constructive and adaptive (Chun et al., 2005). It is argued that dichotomous categorization of coping strategies

does not adequately capture the full complexity of cultural variations of coping (Chung et al., 2005).

There are other types of coping, which are more applicable to the cultural values of communities of color. Collectivistic coping strategies address the ways of coping of persons with an interdependent self-construal (Yeh et al., 2006). For instance, in collectivistic culture, the focus of attention is on the “other” vs. “oneself”; as such, Asian Americans tend to forbear one’s problems in order to minimize or avoid interpersonal conflict (Yeh et al., 2004; Yeh et al., 2005).

A third point of contention with the coping literature in particular is that there have been conceptual differences in understanding the impact of coping. More specifically, there is disagreement as to whether the relationship between two variables (predictor and outcome) is explained by their coping strategies (mediation), or whether the level/kind of coping changes the relationship between two variables (moderation). In the current study, collectivistic coping as a mediator explained the relationship between racism-related stress and psychological distress, suggesting there is a causal mechanism. Collectivistic coping as a moderator addressed whether higher levels, medium levels, or lower levels of collectivistic coping influenced whether a predictor (racism-related stress) is more strongly related to an outcome (psychological distress). The current direction of Asian American racism research sets out to examine moderating, rather than mediating effects of coping strategies against perceived discrimination (Noh et al., 1999; Noh and Kaspar, 2003; Wei et al., 2010). On the other hand, coping as a mediator, as posited by Lazarus and Folkman (1984) has less empirical evidence, particularly with Asian Americans.

However, the two empirical studies, which explore the impact of coping as a mediator, used measures of individualistic coping patterns. Liang et al. (2007) found that the more men perceived racism, the more likely they were to use support seeking coping strategies that were



associated with higher levels of racism-related stress. Likewise, they found the more women perceived racism, the more likely they used active coping strategies that were associated with higher levels of racism-related stress. Alternatively, Alvarez and Juang (2010) found that for Filipino men both support seeking and avoidance were positively associated with psychological distress; and avoidance coping mediated the effect that was associated with elevations in psychological distress. Thus, active coping, at least defined by support seeking (for Filipino men), both increases and decreases psychological distress. Whereas these studies provide evidence that coping explains the relationship between two variables, because the coping measures utilized were individualistic in nature, the coping measure utilized may not accurately capture the experiences of racism-related stress for Asian Americans.

The purpose of the current study was to investigate a stress and coping model for Asian Americans by considering culturally based coping options. As such, the study sought to understand collectivistic coping as mediating (explaining) the relationship between racism-related stress and psychological distress for Asian Americans. The study's main hypothesis stated that the more Asian Americans experienced racism-related stress, the more likely they were to use collectivistic coping strategies that were associated with lower levels of psychological distress. The first aim was to examine whether models of racism-related stress and collectivistic coping predicted psychological distress (depression, anxiety, hostility and defensive paranoia) for Asian Americans. Racial identity status attitudes were also included separately to understand one's experience with racism-related stress to provide more information into the within group variability in racism-related stress reactions that exist among Asian Americans. Thus, the second aim was to determine if one's racial identity status attitudes changed/impacted the relationship between racism-related stress and psychological distress.

### **Review of Data Analysis**

The stress and coping model, which was tested through Structural Equation Modeling (SEM), hypothesized that higher racism-related stress leads to increased use of collectivistic coping strategies, which then decreases psychological distress. SEM is a statistical procedure that is a confirmatory technique used to determine if a model is valid for the data in conjunction with prior research. Because it is an umbrella of three different processes (path analysis, confirmatory factor analysis and regression models), it is a more complete analysis than other statistical procedures. SEM makes it possible to test the presence of variables not directly measured. The structural (i.e., theoretical) model was proposed to have three unobserved latent variables (e.g., racism-related stress, collectivistic coping and psychological distress).

The measurement model (i.e., actual scales and their relationships to the latent variables) consisted of the three unobserved latent variables and the following multiple indicators (i.e., observed variables or scale scores) which were established during preliminary analyses as adequate observed measures for each latent variable. As noted in Figure 4, the unobserved latent variable racism-related stress was predicted by the Asian American racism-related stress index (Liang et al., 2004). Collectivistic coping was predicted by the collectivistic coping scale (Yeh et al., 2008); the unobserved latent variable, Psychological Distress was predicted by the scales from the Brief Symptom Inventory (Derogatis, 1993). It was hypothesized that higher racism-related stress would have a positive effect on more collectivistic coping strategies which would then have a negative effect (decrease) on psychological distress. Although not all the hypotheses were supported, the results of the study showed an overall acceptable model fit. The results therefore, provide strong evidence to support that psychological distress is experienced as a

result of racism-related stress for Asian Americans, despite the use of collectivistic coping strategies.

### **Best-Fitting Structural Model**

To determine if the relationship of racism-related stress and collectivistic coping to psychological distress was a good fit for the data, several goodness-of-fit indices were examined. As previously noted, the model fit indexes were as follows:  $\chi^2 (49, N=866) = 290.016, p < .000, \chi^2 / df = 5.91; (CFI) = .952; RMSEA = .076 (CI = .067 - .084); SRMR = .040.$

The results indicated that the direct structural path between the independent unobserved (latent) variables and the dependent unobserved (latent) variables were significant. The correlation between these two latent variables, racism-related stress and psychological distress ( $r = .18, p < .00$ ), was significant, but weak. This suggests that higher racism-related stress was slightly associated with greater psychological distress for Asian Americans. With respect to the indirect effect or mediating effect of collectivistic coping, there was a significant association ( $r = .44, p < .00$ ) for the path between racism-related stress and collectivistic coping indicating the more that Asian Americans experience racism-related stress, the more likely they were to use collectivistic coping strategies that are associated with higher levels of psychological distress ( $r = .21, p < .00$ ). Based on these results, the re-specified measurement model was deemed to accurately reflect the latent variables in the study. In other words, findings suggest that Asian Americans utilize a culturally based coping style to respond to racism-related stress. However, those coping strategies are significantly related to increased psychological distress, which is contrary to the proposed hypothesis. The following explanations are given for each of the findings.

### **Racism-Related Stress and Psychological Distress**

The present study's findings of the direct effect between racism-related stress and psychological distress were tested through SEM. The findings provide support that Asian Americans who experience higher racism-related stress in turn experience higher levels of psychological distress. The psychological distress latent variable, as defined by SEM, is comprised of four factors: depression, anxiety, defensive paranoia and hostility. One way to understand this finding is that stress attributed to experiences with racism towards oneself or other members of one's racial group is upsetting and painful to the point of depressive, anxious, hostile and even paranoid symptoms. This finding is supportive and consistent with the literature asserting that higher levels of perceived racial discrimination were associated higher psychological distress, higher levels of depression and higher levels of anxiety (Lam, 2007; Gee et al., 2007; Hwang & Goto, 2009; Alvarez & Juang, 2010), and suicidal ideation (Hwang & Goto, 2009).

In addition to consistent findings of higher levels of depression and anxiety (which are two of the factors contributing to the psychological distress latent variable) associated with racism-related stress, the current study also found that Asian Americans experience "defensive paranoia" (a third factor contributing to the psychological distress latent variable) in response to experiences with racism. Accordingly, another explanation for higher levels of psychological distress as a result of racism-related stress is Asian American's justifiable feelings of paranoia based on experienced mistrust. This mental health outcome can be understood as a defense mechanism from feeling injured and treated less-than (Whites). Therefore, Asian Americans have an increased lack of trust as a way to protect themselves. It is important to note that the

blame of the mistreatment is external (on others) and not internal (on oneself). This communicates a sense of injustice in response to the experience of racism.

This explanation conflicts with several notions of the model minority stereotype; that Asian Americans aspire to be White and even that they have “made it” in American society (Marger, 2005; Hune & Chan, 1997; Chou & Feagin, 2008; Lee et al., 2008; Uba, 1994; Mio et al., 2006). In fact, this finding along with supporting research suggests that Asian Americans are hyper-aware that their life as an “American” and their playing field is different than White Americans. Thus, instead of wanting to be “like” Whites, Asian Americans can be guarded against and cautious of White Americans, thus their “defensive paranoia” Therefore, the finding that Asian Americans who experience increased racism-related stress, in turn, experience increased levels of psychological distress can be understood with respect to their mistrust of White Americans.

Another explanation for the finding of increased psychological distress is that Asian Americans who experience increased racism-related stress have strong emotional reactions. This is demonstrated through the fourth factor of the unobserved latent variable (psychological distress), “hostility.” While hostility in response to racism-related stress is common for other People of Color (Clark et al., 1999; Williams et al., 1997), the feeling of hostility for Asian Americans counters the model minority stereotype of Asians as passive and well mannered (Hune & Chan, 1997). Again, the notion that Asian Americans are unaffected by racism (Hune & Chan, 1997) or do not see racism (Chou & Feagin, 2008) is not the case universally as reflected in this sample. In fact, the factors that loaded most strongly on the hostility subscale of psychological distress (as a latent variable) are, “having urges to hurt, injure or harm someone,” “having urges to break or smash things,” and “temper outbursts that you can not control.” What

is unclear, however, is whether or not Asian Americans act-out on these emotions/urges in the moment, or whether the outbursts happen in private, or whether these urges are kept internal. Thus, while they feel distressed internally, their actions and behavior externally may tell a different story, perhaps even one of being unaffected.

The documentation of the negative impact of racism-related stress on mental health and psychological functioning for Asian Americans provides evidence that in spite of the model minority stereotype, their experiences indicate they still suffer from racism's harmful consequences. Whether it is subtle, covert or overt racism, racial hostility and discrimination is present for Asian Americans and has deleterious consequences including anxiety, depression, hostility and paranoia related to defending oneself against racism.

### **Collectivistic Coping as a mediator**

Mediational analyses tested through SEM, indicate that the use of collectivistic coping strategies explains the relationship between racism-related stress and psychological distress. That is, the more racism related stress experienced by Asian Americans the more they use collectivistic coping strategies, which then leads to increased levels of psychological distress. The data shows that Asian Americans are taking an active role in addressing their distressing emotions by actively seeking racial-cultural support as well as support from friends, family and elders/mentors. Although this finding does not support the hypothesis that increased collectivistic coping strategies in response to racism-related stress will decrease (or weaken the effect of) psychological distress, it suggests pertinent considerations.

One explanation for this finding is that the hypothesis itself was individualistic in nature. The assumption that by replacing western and individualistic ways of coping (i.e., Brief Cope:

Carver, 1989) with a culturally salient way of coping (i.e., Collectivistic Coping Scale: Yeh et al., 2008), it would more accurately capture “effective coping” leading to a decrease in psychological distress. However, by following the prevailing assumption in past research on stress and coping, where individuals cope in order to address their *own* needs and reduce their *own* psychological distress, there is no room to consider distress for the collective. Rather, in collectivistic cultures one’s own needs and the needs of the collective are one in the same. Often, collectivistic cultures require some amount of self-sacrifice for the greater good of the collective resulting in an immediate *increase* in distress for the individual (for eventual decrease in distress for the collective). However, the immediate reduction of personal distress may not be the desired outcome for the individual (but rather for the group) or an indication that one has adequately coped with stress (Chun et al., 2005). This notion may explain the findings that Asian Americans use ineffective coping strategies (Bjorck et al., 2001; Chang, 1996; Lee & Liu, 2001) as well as the current finding that collectivistic coping increases psychological distress.

The current study’s findings are inconsistent with Wei et al. (2010) who found that high levels of helpfulness from family support could be beneficial in lessening the association between racial discrimination stress and depression. However, what is conceptually similar is that the family in Asian cultures plays a central role (Kim, Li & Ng, 2005) and is considered a crucial supportive system (Inman & Yeh, 2007; Yeh et al., 2006). Given what we know about early socialization (Erikson, 1994), Asian Americans are likely to learn to cope with racism through the process of racial socialization within their families (Hughes, Rodriguez, Smith, Johnson, Stevenson & Spicer, 2006) and through observing what family members have done in the past to deal with racism (Harrell, 2000). Generally, the first generation of Asian immigrants who come to America focus more on achievement and “making it” in society, and are concerned

more with harmony than “making waves” or “rocking the boat” (Uba, 1994). The goal is to “fit in” and to succeed by “working harder” and not complaining.

Thus, Asian Americans may cope with racism-related stress by following the way in which family members have addressed racism by trusting the wisdom of their elders and accepting advice and guidance from prior generations (Wei et al., 2010). Given the messages received from elders/mentors, the second reason that psychological distress increases is an individual’s pressure to not only forbear, but to work even harder to fit in. Receiving guidance and support within a collectivistic family environment may help Asian Americans feel closer and more bonded to one’s family, friends and to a larger collective, though it may not lessen the strength between racism-related stress and depressive, anxious, paranoid or hostile symptoms for the individual. Again, however, one’s larger collective well-being and level of distress may increase, but individual well being could decrease.

The current study’s findings are consistent with Alvarez and Juang’s (2010) findings where support-seeking is positively associated with psychological distress. They argue that dialoguing with others about racism may elicit a sense of helplessness or despair about racism. Similarly, in this study, a third explanation may be that talking about and feeding into racism and racism-related incidents with others may cause rumination and collusion over an injustice. This may leave one feeling further agitated with increased hostility towards others (Whites) and, therefore, more distressed.

An alternative explanation may be that Asian American’s do not perceive that personal power creates change in addressing racism or a racist encounter. Lazarus (2006) has observed that support-seeking strategies are often used when stressors are perceived as unchangeable. Although support-seeking is considered active, it is not in the same category as “active coping”,



which are considered as “doing something about a situation” or “taking action to make a situation better” (Carver, 1989). However, inherent in these items is that effective coping involves changing a situation. The pattern of responses indicates that Asian Americans often feel that situations are beyond their locus of control. For collectivistic cultures, if a situation (racist incident) or larger construct (racism) seems unchangeable, often the individual embraces harmony with others and use avoidance coping to negotiate social situations and change *oneself* rather than the structure (Yeh et al., 2006; Yeh & Wang, 2000). One way of focusing on and changing oneself is coping by forbearance and faith strategies. In reaction to racism, the “action” of forbearance may involve a strategy of enduring or tolerating an incident for the sake of the larger community. For instance, while urges of hostility and violence are high, perhaps Asians Americans are able to contain their anger, stay safe, and live-through their distress tolerance and come out stronger for it (Najavis, 1998). They may also press into their faith and religion, believing that the situation is bigger than themselves and will work itself out and that everything happens for a reason.

A second alternative explanation is that racism or the racist incident *does* seem changeable, but the means by which change transpires is collectivistic action vs. individualistic confrontation. Four out of the five factors which create the latent variable of collectivistic coping identified through SEM, include coping by seeking support (from friends, racial-culturally similar individuals, and elders/mentors). While support seeking is predominantly a collectivistic coping strategy, what is unknown is whether the support is active (encouraging action) or passive (listening ear). For example, an Asian American individual may be called a racial slur while being denied service at a restaurant. That individual may seek support and guidance from a racial-cultural group, who rallies together for an activist cause and consequently writes a

petition, which is sent around the neighborhood to boycott the restaurant. Thus, seeking support from a friend or from others who have similar racial-cultural experiences may actually be the first step towards changing not the stressor itself, but one's response to the stressor as a way of future change. In this instance, Asian Americans may seek support and affirmation from friends, family and other Asian Americans in order to communicate their rage and pain in a reflective way, such as in the spirit of activism. While it may not immediately decrease individual distress levels, they 1) may feel more bonded to the group and 2) may be building for change in the long run.

It is important to recognize the role of culturally congruent coping in dealing with racism. Despite this present study's data, which adds to existing research, affirming that a) cultural context influences the perceptions of stressors, b) effective coping strategies, and c) culturally relevant solutions to those specific stressors, scholars continue to ignore cultural context of coping (Heppner, 2008; Yeh et al., 2006). The results of the present study clearly indicate the need for clinicians and researchers to consider culturally congruent coping strategies for Asian Americans when dealing with racism-related stress.

### **Collectivistic Coping as a moderator**

Given that coping is largely conceptualized as a moderator (Noh et al., 1999; Noh & Kasper, 2003), a post-analysis was conducted to explore whether the relationship between racism-related stress and psychological distress changes for Asian Americans who use high levels, medium levels or lower levels of collectivistic coping strategies. The study found that Asian Americans' level of collectivistic coping strategies did not significantly change or predict the relationship between racism-related stress and psychological distress.

One explanation is that the results may be insignificant because of the loss of power given the lower sample size. Moderation through SEM was tested as “low coping” (N=207), “medium coping” (N=415) and “high coping” (N=227), which split the sample into three groups and significantly reduced the sample size of each group. Statistical power depends on the significance criterion ( $\alpha$ ), the sample size (N) and the proper effect size. In regard to effect size, evaluation of power for SEM, (MacCallum, Brown and Sugawara, 1996) is based on the effect size of the Root Mean Square Error of Approximation (RMSEA), which indicates the discrepancy in fit per degree of freedom and thus “adjusts” for sample size. With respect to sample size in the current study, because of the decreased sample size in the moderation analysis, the probability that the hypothesis will be rejected when it is false, that is, the probability of obtaining a statistically significant result is lessened. Compared to a much larger and robust sample size of 866 participants, the proportion of participants who utilize “low coping” (N=207) strategies is almost four times smaller.

### **Racial Identity on Racism-Related Stress and Psychological Distress**

A separate model was run through path analysis to test for moderation of racial identity on the relationship between racism-related stress and psychological distress. There was no indirect effect between racism-related stress and psychological distress found. Therefore, racial identity status attitudes did *not* moderate the relationship between racism-related stress and psychological distress for Asian Americans. In other words, racism-related stress did not account for a significant amount of the variation in psychological distress. The scatter plot for racism-related stress and psychological distress (Table 12) illustrates that Asian Americans had a wide distribution of responses with regard to their stress level related to racism and racist incidents.

However, for psychological distress, the responses were concentrated around lower levels of distress with the exception of several outliers, who reported extremely high levels of distress. While it stands to reason that higher stress with one construct (with respect to racism) would result in higher distress on the other distress variable (with respect to psychological symptoms) as found in SEM, the finding for the path analysis found no association between the two.

The main explanation of the finding is that Path Analysis limited what the researcher was able to see with the current data. Whereas Path Analysis deals with measured variables that are observed directly, in SEM, latent variables (unobserved variables) cannot be observed directly and must be inferred from measured variables. They are implied by the covariances among two or more measured variables. As such, SEM takes a more complex approach than path analysis and allows for more rich analysis of data. Thus, the advantage of SEM's approach is its usefulness in understanding relational data in multivariate systems. SEM is able to distinguish between indirect and direct relationships between variables and analyze relationships between latent variables without random error, which differentiates SEM from other simpler relational modeling processes. However, at this point in time SEM is unable to analyze moderating variables without higher-level interaction terms. While the results of the path analysis indicate that there is no significant relationship between racism-related stress and psychological distress, there was a significant relationship found in SEM. Perhaps SEM was able to sort through the "noise" or error, and capture variance that was obscured by solely analyzing observed variables.

Another explanation for the finding that racial identity does not moderate the relationship between racism-related stress and psychological distress is that while Asian Americans feel a great deal of stress related to racism and racist experiences, they are not personally distressed. Asians Americans tend to have a more external locus of control, or a belief that "their own

behaviors don't matter much and the rewards in life are generally outside their control; and function of chance, luck, fate, or powerful others, which is unpredictable" (Rotter, 1990, p 489). Their external locus of control (Rotter, 1966) is closely associated with collectivistic values. Compared with individualistic Western cultures, Asian American cultural values emphasize selfless subordination to family and community, which may decrease levels of personal control. Furthermore, collectivistic cultures function such that high levels of personal control of external factors (ie., racism) among Asian Americans may be a norm violation. Generally, Asian Americans report lower levels of perceived control than non-Asians. Sastry and Ross (1988) found that for Asian Americans, a sense of personal control has less of an impact on psychological distress. Therefore, the utilization of collectivistic values help explain why high levels of perceived control may be associated less strongly with psychological well-being for Asian Americans (Sastry & Ross, 1998).

At face value, the finding that Asian American's stress related to racism are related to psychological distress, affirms some of the underlying tenets of the model minority stereotype. In other words, it may appear that Asian Americans are unaffected by racism, function well and continue to succeed in American society. However, the current study's findings paint a much more rich and complex picture. The lack of personal distress is not to say that Asian Americans do not experience high degrees of distress, rather, as seen with their collectivistic coping strategies, Asian Americans are prone to seek support from others and forbear a great deal in order to cope with stress. Thus, Asian Americans are able to deal with a great amount of stress related to racism and not have it affect their psychological functioning.

Another explanation that racial identity does not moderate the relationship between racism-related stress and psychological distress is that Asian Americans are underreporting their

symptoms. Considering that Asian Americans forbear their distress and believe that experiences of racism are a function of chance or out of their control, it may cause Asian Americans to withhold their symptoms. Chen et al (2002) found that because of cultural bias and stigma, Asian Americans tend to view depression as a personal weakness or moral failing. In other words, Asian Americans may not want to admit feelings of sadness, anxiety, hostility or lack of trust towards others if they reflect a lack of faith or weakness in one's ability to forbear.

In order to have moderation, an existing (often weak) relationship between the predictor and outcome variable must be present. Because there was no significant direct effect between racism-related stress and psychological distress, there were no significant indirect effects found. None of the racial identity status attitudes (Conformity, Dissonance, Immersion, Resistance and Internalization) moderated the relationship between racism-related stress and psychological distress. As a consequence, the path was not able to answer "when" or "for whom" racism-related stress is strongly associated to psychological distress, given that the IV and DV are not correlated.

### **Limitations of the Study**

The interpretations and findings of the current investigation should be taken with caution due to several limitations to internal and external validity.

#### **Generalizability: Stress and Coping Model and Asian Americans**

One main limitation to consider is a possible threat to external validity. Perhaps Lazarus and Folkman's model is not generalizable for People of Color, and for the present study, for Asian Americans. Furthermore, creating racial-cultural saliency within the model of stress and

coping may be attempting to modify an already flawed theoretical framework. The current study's model of stress and coping was operationalized using constructs that were not previously included in Lazarus and Folkman's (1984) stress and coping model. Specifically, racism-related stress and collectivistic coping were the latent variables in order to adjust for racial-cultural saliency. However, perhaps the question isn't whether collectivistic coping and racism-related stress can be subsumed under Lazarus and Folkman's (1984) stress and coping model; but rather it is the model in and of itself that is inherently flawed. Given that the foundation of their conceptualization and subsequent findings are based on White American participants, one might argue the theory itself cannot be extended to "fit" People of Color or, specifically, Asian Americans. There have been criticisms of Lazarus and Folkman's (1984) model especially as applied to Asian Americans. More specifically, the literature explores coping as a moderator (Noh et al., 1999; Noh & Kaspar, 2003). Perhaps then, an entirely different model or conceptualization may be a more accurate theory that captures the experience of psychological distress in relation to experiences of racism for Asian Americans. For instance, Asian American's emotional reactions to racism may capture feelings of distress in a different manner, given that Asian Americans tend to underreport and/or forbear their symptoms.

### **Selection: Ethnic Group Differences**

It stands to reason that with over 20 plus ethnic groups (Uba, 1994; Marger, 2005), each Asian American ethnic group may have different experiences with race and racism as a result of their respective historical and sociopolitical experiences in the United States (Alvarez & Juang, 2010). As a result, studies that aggregate across various Asian American ethnic groups may obscure important within-group differences in their racial experiences.

Thus, a threat to internal validity is that Asian Americans bring with them unique characteristics and cultural values from their ethnic groups which, when compared, differ significantly. For instance in the current study, with respect to ethnic group differences, Chinese and Japanese Americans experienced more socio-historical racism than Taiwanese; and Koreans and Vietnamese participants experienced more general stereotype racism than South Asian (Indian). However, while Chinese, Japanese, Korean and Vietnamese experienced more racism-related stress on certain aspects of racism, it was the Southeast Asians who utilized the coping strategies across the board. Likewise, Southeast Asians were significantly higher than many of the other ethnic groups across eight symptoms of psychological distress (somatization, anxiety, depression, phobic anxiety, paranoia, obsessive compulsion, hostility and psychoticism). Similarly, the collectivistic coping measure reveals that Southeast Asians utilized each of the coping strategies to a higher degree than other ethnic groups. It may be understood that some ethnic groups need less coping to lower psychological distress and other groups need more coping resources to address moderately stressful situations. Yet, they still remain in distress. The current study does not address the nuances of each ethnic group.

Differential feedback was also given qualitatively in regards to the Racism-Related stress scale. Specifically, South Asians and Pacific Islanders stated that the measure did not feel applicable to them. The term Asian American was used, as it is most representative of research on the topic area; however, depending on the geographic location, some Asian ethnic groups do not consider themselves Asian Americans. For instance, some Indians consider themselves as distinct; similarly Native Hawaiians and Samoans do not consider themselves Asian American.

Furthermore, the largest percentages of respondents, 36.5% (n=316), were from the West Coast and the Pacific (e.g., California, Hawaii, Nevada and Arizona). However, the experience



of race and racism in Hawaii is distinct from the mainland and should be conceptualized as separate from the Pacific. Thus, lumping Asian American's experiences in Hawaii with the West Coast may also be a threat to external validity given that Asian American mainland experiences are not generalizable to people living in Hawaii. Asian Americans and Pacific Islanders living in Hawaii are of the majority group, with a different historical legacy in the islands. For instance, many Japanese and Chinese first immigrated to Hawaii to work on sugar plantations in the late 1700's and early 1800's, followed by the Japanese. Thus, with respect to generational status, Asian Americans living in Hawaii tend to be 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> generation as opposed to 1<sup>st</sup> generation immigrants to the United States, which is more common on the mainland (Marger, 2005). As such, the socio-political climate, as well as racial-socialization, is much different. Complaints of racism exist more between Asian ethnic groups or from Asian Americans/Pacific Islanders towards White people. Moreover, Pacific Islanders have a distinct culture in Hawaii (and broadly) and do not consider (or refer to themselves) as Asian American.

### **Instrumentation: Collectivistic Coping Scale (CCS) and the Brief Symptom Inventory (BSI)**

Another distinct limitation and threat to internal validity is the operationalization of collectivistic coping as a total score. Despite studies in progress that have utilized total score for Collectivistic Coping Scale, the CCS was to be originally analyzed by subscales, and not computed into a total score. Each subscale represents a different aspect of coping (e.g., forbearance coping, family support coping strategies). Thus, when operationalizing coping, it is difficult to contextualize what it means to "cope well" or to have "low coping" vs. "high coping." Aggregating the data provides an "overall" coping index, this may be a limitation

conceptually, and there is no such thing as an “overall score” of collectivistic coping. In other words, it may be conceptually inaccurate to one dominant coping style for a given person. Therefore, it may be richer to look at the data in terms of how each scale separately relates to the other variables. This would not be analyzed in SEM, given that each coping scale (i.e., forbearance, family, and friends) would be an indicator, and not a latent variable. An alternative would be to create second-order factors from among the scales and use the factors as predictors (Carver et al., 1989). While this was beyond the scope of the study, which was to analyze collectivistic coping as a latent variable in SEM, it would be valuable for future research.

A separate instrumentation limitation is that perhaps the Brief Symptom Inventory (BSI) was not the most appropriate psychological distress measure in conjunction with the Asian American Racism Related Stress Index (AARRSI). The BSI is an inventory that assesses symptoms in the past seven days. Oftentimes participants referenced events in the racism-related stress measure such as, “you hear about a racially motivated murder of an Asian American man,” which may have happened years ago. Yet the measure asks participants to respond how they are feeling at this time, or in the recent past. Thus, current stressors in the participants’ lives may have impacted their level of psychological distress. For instance, an experience with racism can be traumatic to stay with an individual for many years (Carter, 2005; Loo et al., 1998). Thus, perhaps the instruments were not the best matched to maximize understanding of the study.

### **Implications for Mental Health Services with Asian Americans**

This study makes several significant contributions to psychology, coping and racism literature as well as carrying important clinical implications. The findings show that racism continues to affect Asian Americans in a pervasive manner. Despite the model minority

stereotype and the notion that Asian Americans have “made it” in this country and no longer experience racism, this study reveals otherwise. Moreover, often, the stress related to racism can often lead to depressive and anxious symptoms. Thus, clinicians should consider that if an Asian American presents as depressed (or angry, paranoid), they should consider a larger cultural context. The client may attempt to understand his/her circumstances as stress related to work, school, parents, etc., while stress related to racism may also play a significant conscious or unconscious factor.

Secondly, with respect to coping strategies, the study found that Asian Americans utilize coping strategies that are different than “approach” coping or “problem solving” coping, which are culturally valid. More specifically, Asian Americans utilize a large community support network including others who are racially similar to themselves and those who share similar racial-cultural experiences. In addition, Asian Americans cope with racism-related stress by seeking support of friends and family. Each of these coping strategies are active ways that Asian Americans seek help in times of stress.

Much like other People of Color (Carter & Forsyth, 2010), because Asian Americans utilize other resources (elders/mentors, friends, family, racially-similar others) to discuss problems, they often seek help for mental health concerns as a last resort. It may be particularly salient that Asian Americans fail to seek out mental health services in the first place. Research has consistently shown that the rate of mental health service utilization by Asian Americans is only about one-third of what might be expected given the size of their population (Abe-Kim et al., 2007; Tewari, 2009; Yang & Worpai-Borja, 2007). Sue and Sue (2003) speculate it is partly because of cultural discrepancies between the values of the Asian client and those of the mental health practitioner. David (2010) found that for Filipino Americans, higher levels of cultural

mistrust is related to lower likelihood of seeking professional psychological help over and above income, generational status, loss of face, and adherence of Asian cultural values. It is, therefore, important for clinicians to consider how cultural mistrust may influence actual mental health seeking behaviors, preference for a certain race or ethnicity of clinicians, early termination of therapy, satisfaction with services received, and effectiveness of received treatment (David, 2010).

Asian Americans' help seeking may not be with mental health professionals (or professionals of any kind), but rather reliance on family (Yeh & Wang, 2000; Alvarez & Juang, 2010) and alternative resources as opposed to traditional counseling given shame and stigma (Sue, 1994) associated with personal problems as well as a shortage of culturally sensitive therapists (Loo, Tong & True, 1989; Tsai, Teng & Sime, 1980). Thus, their lack of utilization of mental health resources does not indicate a lack of need, but rather masks barriers to utilization (Yeh et al., 2006). Therefore, mental health professionals would benefit from collaborating with religious organizations, indigenous healers, and community members in order to explain and discuss the goals and process of support groups and counseling in conjunction with other coping resources (Yeh et al., 2006).

Lastly, although racism-related stress has been extensively studied, few studies have taken a closer look at the experience of racism for Asian Americans. The present study was able to contribute to the literature on coping and racism by confirming a model where collectivistic coping mediates the relationships between racism-related stress and psychological distress for Asian Americans.

In addition, this study made contributions to the literature on racial identity. Particularly, this study confirms the previous research on where racial identity status attitudes,

conformity/dissonance in particular, moderate the relationship between racism-related stress and psychological distress. Often, the individual may have never considered racism as a stressor, or even more, not explored what it means to be a racial-cultural being in the world. Thus, it would be important for a clinician to not only acknowledge the stress that can exist in the presence of racism, but what is more, help the individual cultivate his/her Asian American identity and cultural values. As these individuals look to cultivate identities that integrate their previously rejected racial groups, they may also be more likely to recognize and interpret messages that could be perceived as racist in nature.

### **Directions for Future Research**

An area of exploration for future studies is an examination of differential experiences among the various Asian ethnic groups with respect to racism-related stress and psychological distress. Southeast Asian ethnic groups in particular had differential experiences with racism-related stress than other Asian ethnicities.

Future studies may consider exploring other variables that may play a role in how Asian Americans process their experiences with racism. The findings indicate that perhaps psychological distress as an outcome measure may not have captured what Asian Americans really experienced in response to experiences with racism. A possible area that would provide rich analysis would be to explore emotions as they relate to stress. For example, Carter and Forsyth (2010) looked at the emotional reactions to stress related to racism. Emotional reactions to racism may be able to cut-through more of the forbearance, which may have served to obscure the distress, which was unseen.

With respect to collectivistic coping, another area of exploration may be to run the moderator on 3 levels (or models). The main limitation for collectivistic coping as a moderator may have been loss of power given the significant decrease in sample size. As such, the three levels would run simultaneously and use the power of the total sample size (N=866) to contribute to the measurement model. In the multiple structural model, all variables would be kept constant while SEM would allow for parameter changes and differences for “low coping,” “medium coping” and “high coping.” Another consideration may be to explore the current data in a path analysis outside the realm of a set theoretical model in order to test the moderation of each coping subscale.

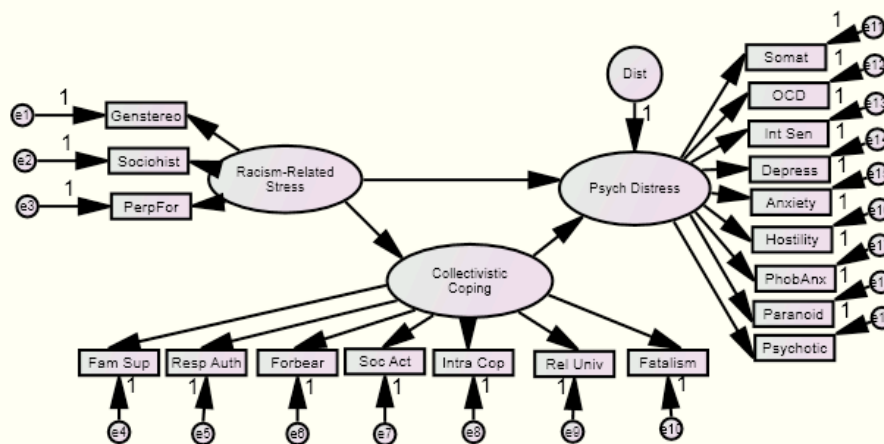
In regard to racial identity status attitudes, based on previous studies, there is evidence that racial identity may account for variation in the relationship between racism-related stress and psychological distress. Instead, the way in which racial identity status attitudes should be explored to analyze the construct as a profile or cluster, given that every individual has a blend of each status. Therefore, the pattern of racial identity status attitudes can be explored using a pattern of profiles through multiple regression analysis. The analysis would have two components, 1) the level of responses or a total-scale mean score and 2) the pattern or configuration of predictor RIA scores. Both components of the criterion related profiles would be used in the subsequent regressions as predictors.

Lastly, collectivistic coping and racial identity could be combined into the same model. The current study analyzes both as a mediator and moderator respectively, though in two different models. Perhaps a differently conceptualized model of stress and coping could also include racial identity as a latent variable.

### **Summary and Conclusion**

In summary, this study was able to empirically validate the model of stress and coping, where collectivistic coping moderates the relationship between racism-related stress and psychological distress. However, the study was unable to clearly assess whether racial identity status attitudes moderates the relationship between racism-related stress and psychological distress. This study was able to highlight several important issues related to Asian American psychology, research, and practice. It also provided conceptual and measurement issues related to understanding collectivistic coping as well as psychological distress for Asian Americans. It is hoped that the present study will serve to inspire researchers specifically interested in Asian American psychology, and in clinical treatment of a diverse and complex racial group.

Figure 1. Proposed Structural Model A





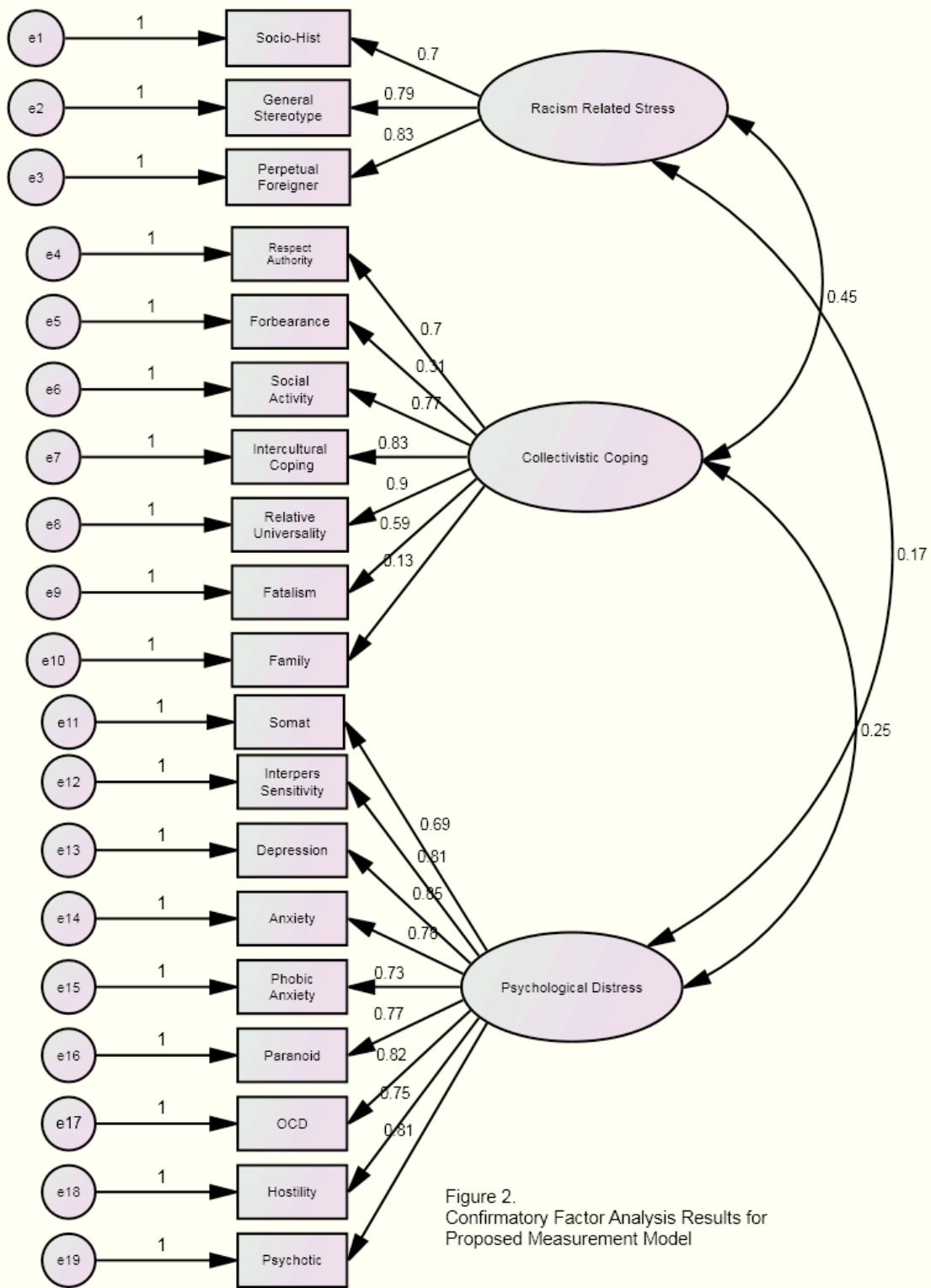


Figure 2. Confirmatory Factor Analysis Results for Proposed Measurement Model

Figure 3. Confirmatory Factor Analysis Results for Best Fitting Measurement Model (Alternate)

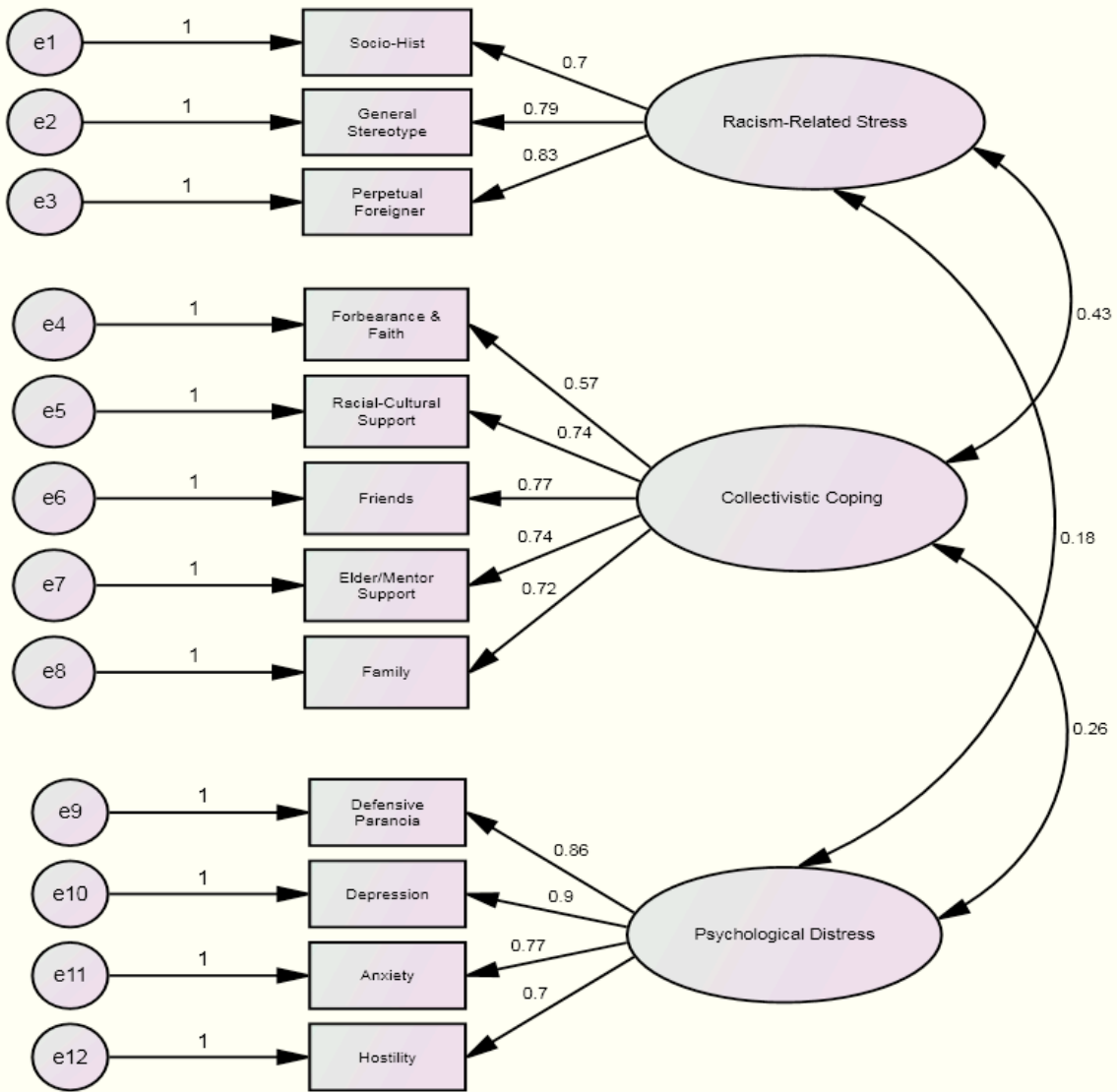


Figure 4. Best Fitting Structural Model, five-factor CCS; four-factor BSI

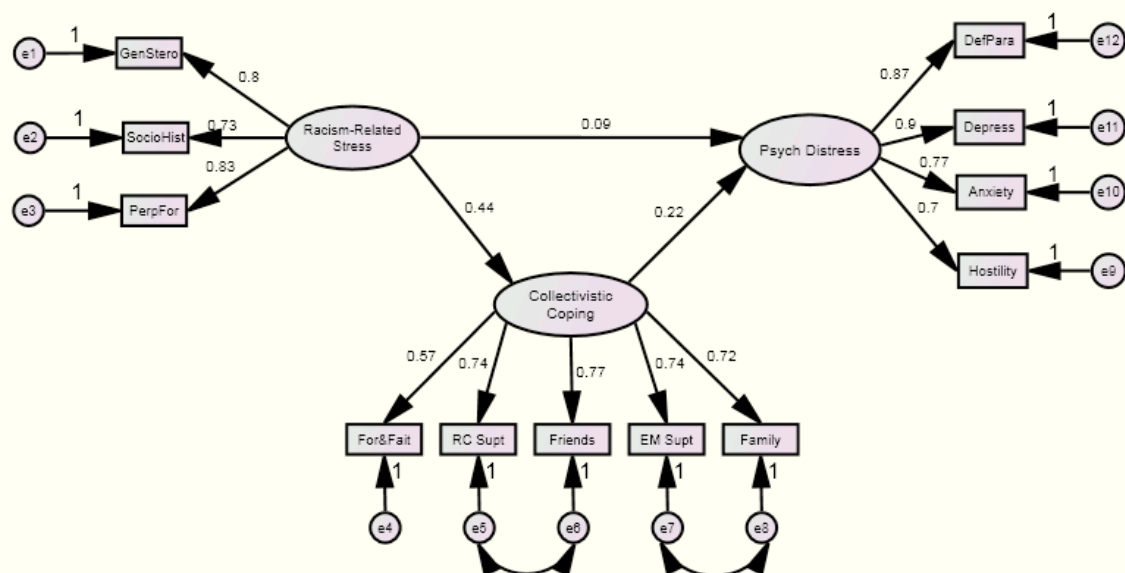


Figure 5. Path Model (Racial Identity) B

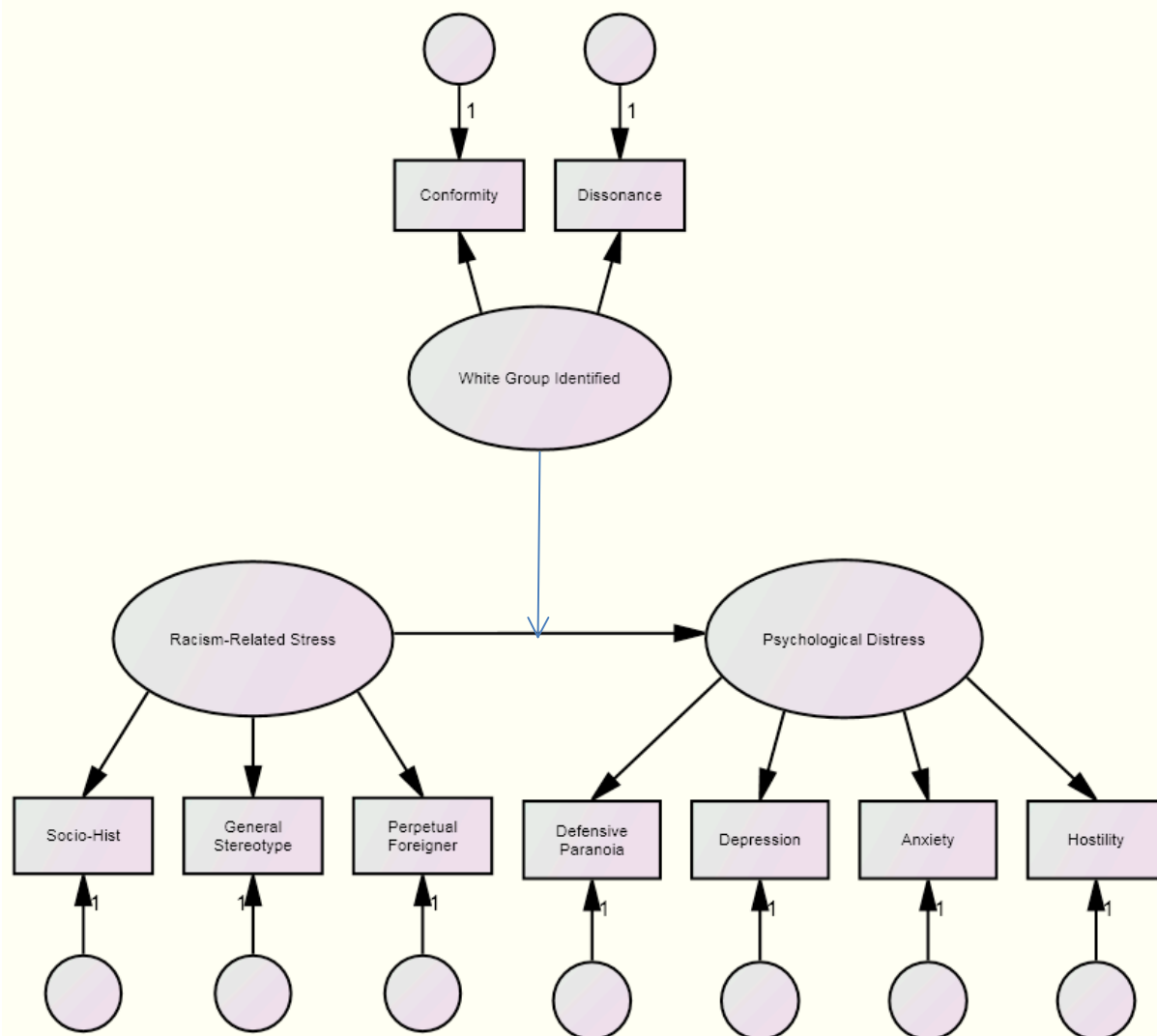


Table 1

*Frequencies and Percentages of Demographic Variables (N = 866)*

Variables		Frequency	Percentage
Gender	Male	299	34.5%
	Female	562	64.9%
	Other	5	0.6%
Age	18-25	220	70.7%
	25-30	91	29.3%
	30-35		
	35		
Ethnicity	Cambodian	1	0.1%
	Chinese	240	27.7%
	Indian	54	6.2%
	Filipino	98	11.3%
	Hmong	59	6.8%
	Indonesian	1	0.1%
	Japanese	57	6.6%
	Laotian	5	0.6%
	Malaysian	2	0.2%
	Native Hawaiian	3	0.3%
	Pakistani	3	0.3%
	Taiwanese	68	7.9%
	Thai	7	0.8%
	Vietnamese	43	5.0%
	Other	51	5.9%
Generational Status	Second Generation	759	87.6%
	Third Generation	46	5.3%
	Fourth Generation	50	5.8%
	Fifth Generation	5	0.6%
	Missing	6	0.7%
Income	\$0 - \$25,000	138	15.9%
	\$25,000 - \$50,000	164	18.9%
	\$50,000 - \$75,000	154	17.8%
	\$75,000 - \$100,000	132	15.2%
	\$100,000 - \$125,000	83	9.6%
	\$125,000 - \$150,000	44	5.1 %
	\$150,000 - \$175,000	29	3.3%
	\$175,000 - \$200,000	36	4.2%
	\$200,000 - \$225,000	23	2.7%
	\$225,000 - \$250,000	7	0.8%
	\$250,000 and above	56	6.5%

Religion	Agnostic	92	10.6%
	Athiest	60	6.9%
	Buddhist	69	8.0%
	Catholic	114	13.2%
	Hindu	32	3.7%
	Jain	13	1.5%
	Mormon	1	0.1%
	Muslim	4	0.5%
	Non-Religious	159	18.4%
	Protestant	274	31.6%
	Seventh Day Adventist	1	0.1%
	Shaman	10?	1.0%
	Sikh	3	0.3%
	Other	44-shaman	4.1%
Highest Degree Earned	High School	118	13.6%
	College Degree	391	45.2%
	Masters Degree	244	28.2%
	Doctorate or Terminal Degree	113	13%
Residence	Pacific Alaska	33	3.8%
	Pacific	316	36.5%
	Rocky Mountain	7	0.8%
	Southwest	24	2.8%
	Central Plains	15	1.7%
	Great Lakes	140	16.2%
	Northeast	191	22.1%
	Mid-Atlantic	106	12.2%
	Southeast	20	2.3%
	Other	14	1.6%

Table 2

*Means, Standard Deviations, Ranges, and Reliability Coefficients for AARRSI, CCS, POCRIAS, and BSI Subscales<sup>a</sup>*

Scale	Subscales	<i>M</i>	<i>SD</i>	Range	$\alpha$
AARRSI	Socio-Historical Racism	45.65	11.79		.88
	General Stereotype	17.69	6.25		.79
	Perpetual Foreigner Stereotype	18.35	6.57		.80
CCS	Respect Authority	12.36	7.86		.91
	Forbearance	17.47	9.95		.92
	Social Activity	17.17	8.62		.90
	Intracultural Coping	17.69	8.66		.88
	Relational Universality	22.04	10.45		.90
	Fatalism	18.20	8.93		.85
	Family	17.00	9.48		.88
POCRIAS	Conformity/Prencounter	13.69	4.22		.79
	Dissonance	24.94	6.95		.84
	Immersion/Resistance	22.80	6.61		.85
	Internalization				
BSI	Total Score	38.39	4.65		.75
	Somatization	8.63	3.12		.81
	Obsession-Compulsion	9.64	4.32		.86
	Interpersonal Sensitivity	6.32	2.96		.83
	Depression	8.84	3.93		.86
	Anxiety	8.64	3.48		.74
	Hostility	7.10	2.84		.78
	Phobic Anxiety	6.10	2.17		.75
	Paranoid Ideation	7.33	3.15		.79
	Psychoticism	6.79	2.86		.76

a. Asian American Racism Related Stress Index (AARRSI), Collectivistic Coping Scale (CCS), People of Color Racial Identity Scale (POCRIAS), Brief Symptom Index (BSI)

Table 3.

*Means, Standard Deviations, Ranges, and Reliability Coefficients for AARRSI, CCS, POCRIAS, and BSI Best-Fitting Subscales<sup>a</sup>*

Scale	Subscales	<i>M</i>	<i>SD</i>	Range	<i>A</i>
AARRSI	Socio-Historical Racism	45.65	11.79		.88
	General Stereotype	17.69	6.25		.79
	Perpetual Foreigner Stereotype	18.35	6.57		.80
CCS	Forbearance and Faith	35.67	17.22		.92
	Racial-Cultural Support	32.72	15.61		.94
	Friends	21.03	10.19		.91
	Elder Mentor Support	12.36	7.86		.91
	Family	17.00	9.48		.88
POCRIAS	Conformity/Precounter	18.39	5.84		.76
	Dissonance	37.30	8.42		.79
	Resistance	15.41	4.69		.77
	Immersion	11.66	3.41		.61
	Internalization	41.84	5.00		.75
BSI	Defensive Paranoia	16.82	6.90		.90
	Depression	17.73	7.13		.90
	Anxiety	12.08	3.98		.85
	Hostility	7.50	2.77		.79

b. Asian American Racism Related Stress Index (AARRSI), Collectivistic Coping Scale (CCS), People of Color Racial Identity Scale (POCRIAS), Brief Symptom Index (BSI)



Table 4.  
 MANOVAs for Ethnicity and Instrument<sup>a</sup> Subscales

Scales	Subscales	Mean Square	<i>F</i>	<i>R</i> <sup>2</sup>	Adj. <i>R</i> <sup>2</sup>	Partial Eta Squared	Observed Power <sup>a</sup>	Sig.
AARRSI								
	Socio-Historical Racism	377.30	2.75	.025	.016	.025	.940	.005*
	General Stereotype Racism	103.21	2.68	.024	.015	.024	.933	.006*
	Perpetual Foreigner Racism	83.75	1.95	.018	.009	.018	.814	.050
CCS								
	Respect Authority	221.23	3.66	.033	.024	.033	.987	.000*
	Forbearance	225.73	2.30	.021	.012	.021	.884	.019*
	Social Activity	304.97	4.22	.038	.029	.038	.995	.000*
	Intracultural Coping	174.45	2.35	.021	.012	.021	.892	.017*
	Relative Universality	448.18	4.22	.038	.029	.038	.995	.000*
	Fatalism	249.12	4.53	.041	.032	.041	.997	.000*
	Family	620.20	7.29	.064	.055	.064	1.00	.000*
POCRIAS								
	Conformity	194.38	6.28	.055	.047	.055	1.00	.000*
	Dissonance	154.89	2.30	.021	.012	.021	.884	.019*
	Resistance	180.81	3.51	.032	.023	.032	.983	.001*
	Internalization	13.57	.687	.006	-.003	.006	.323	.703*
BSI								
	Somatization	27.14	2.83	.026	.017	.026	.948	.004*
	Interpersonal Sensitivity	13.79	1.57	.014	.005	.014	.706	.128
	Depression	57.69	3.81	.034	.025	.034	.990	.000*
	Anxiety	30.24	2.52	.023	.014	.023	.916	.010*
	Phobic Anxiety	11.05	2.36	.022	.012	.022	.893	.016*
	Paranoid	32.19	3.30	.030	.021	.030	.975	.001*
	Obsessive Compulsion	49.73	2.70	.025	.016	.025	.936	.006*
	Hostility	24.20	3.05	.028	.019	.028	.963	.002*
	Psychoticism	40.40	5.10	.045	.037	.045	.999	.000*

a. dependent variables: Asian American Racism Related Stress Index (AARRSI), Collectivistic Coping Scale (CCS), People of Color Racial Identity Attitudes Scale (POCRIAS), Psychological Distress (BSI)  
 b. computed using alpha = .05

Table 5.

*Intercorrelations among Predictor and Criterion Variables (N = 866)*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1																							
2	.55*																						
3	.57*	.68*																					
4	.10*	.13*	.04																				
5	.11*	.10*	.11*	.49*																			
6	.10*	.10*	.09*	.56*	.69*																		
7	.14*	.16*	.06*	.69*	.60*	.66*																	
8	.13*	.14*	.05*	.67*	.59*	.57*	.69*																
9	.19*	.15*	.16*	.45*	.72*	.62*	.55*	.52*															
10	.11*	.13*	.10*	.60*	.67*	.73*	.64*	.53*	.60*														
11	.13*	.12*	.11*	.48*	.59*	.64*	.58*	.48*	.69*	.63*													
12	.09	.11*	.10*	.58*	.69*	.81*	.66*	.64*	.66*	.70*	.65*												
13	.30*	.28*	.23*	.19*	.11*	.08	.20*	.16*	.16*	.07	.04	.11*											
14	.07	.18*	.09*	.14*	.19*	.22*	.20*	.17*	.20*	.19*	.12*	.24*	.28*										
15	.24*	.27*	.23*	.07	.18*	.14*	.17*	.12*	.18*	.18*	.10*	.17*	.56*	.37*									
16	.41*	.29*	.33*	.11*	.19*	.13*	.19*	.14*	.19*	.18*	.14*	.14*	.57*	.13*	.57*								
17	.38*	.30*	.33*	.08	.22*	.14*	.19*	.12*	.22*	.18*	.14*	.15*	.61*	.19*	.70*	.80*							
18	.15*	.21*	.15*	.14*	.18*	.17*	.18*	.16*	.21*	.19*	.11*	.22*	.50*	.64*	.57*	.40*	.48*						
19	.24*	.23*	.18*	.17*	.11*	.07	.18*	.14*	.17*	.12*	.07	.13*	.69*	.30*	.55*	.53*	.54*	.52*					
20	-.11*	.03	.07	.08	.21*	.20*	.14*	.15*	.20*	.16*	.14*	.20*	.03	.28*	.12*	.01	.03	.21*	.05				
21	.13*	.17*	.13*	.23*	.42*	.40*	.31*	.29*	.32*	.33*	.27*	.29*	.12*	.33*	.20*	.17*	.18*	.30*	.13*	.49*			
22	.48*	.29*	.26*	.14	.26*	.23*	.20	.22*	.31*	.22*	.24*	.21*	.27*	.15*	.24*	.37*	.34*	.20*	.20*	.09*	.39*		
23	-.00*	-.03	-.04	.00	-.11*	-.08*	-.19*	-.16*	-.07	-.04	-.04	-.07	.02	-.04	.09	.08	.07	.05	.07	-.24*	-.24	-.14*	

1. Socio-Historical Racism, 2. General Stereotype, 3. Perpetual Foreigner, 4. Somatization, 5. Internal Sensitivity, 6. Depression, 7. Anxiety, 8. Phobic Anxiety, 9. Paranoid, 10. Obsession-Compulsion, 11. Hostility, 12. Psychoticism, 13. Respect Authority, 14. Forbearance, 15. Social Activity, 16. Intracultural Coping, 17. Relational Universality, 18. Fatalism, 19. Family, 20. Conformity, 21. Dissonance, 22. Immersion/Resistance, 23. Internalization

Table 6.

*Intercorrelations among Predictor and Criterion Variables (N = 866)*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1																	
2	.55*																
3	.57*	.68*															
4	.15*	.21*	.13														
5	.39*	.30*	.35*	.30*													
6	.23*	.26*	.23*	.50*	.65*												
7	.29*	.28*	.23*	.42*	.60*	.55*											
8	.23*	.23*	.18*	.45*	.54*	.54*	.69*										
9	.14*	.12*	.13*	.24*	.20*	.20*	.12*	.12*									
10	.12*	.15*	.10*	.25*	.16*	.18*	.11*	.14*	.78*								
11	.10*	.14*	.06	.21*	.14*	.13*	.19*	.16*	.65*	.70*							
12	.12*	.12*	.08*	.14*	.12*	.11*	.07	.09	.67*	.67*	.59*						
13	-.04	.07	.05	.30*	.01	.12*	.10*	.10*	.19*	.15*	.17*	.11*					
14	.17*	.15*	.16*	.25*	.17*	.14*	.06	.04	.48*	.40*	.30*	.29*	.40*				
15	.50*	.30*	.29*	.09*	.31*	.17*	.21*	.12*	.27*	.20*	.18*	.20*	.13*	.33*			
16	.20*	.03	.13*	.06	.24*	.19*	.05	.07	.10*	.06	-.09*	.05	-.30*	-.04	.02		
17	.22	.19*	.09	.22*	.24*	.15*	.26*	.23*	.15*	.15*	.20*	.11*	.24*	.258	.49*	-.13*	

1. Socio-Historical Racism, 2. General Stereotype, 3. Perpetual Foreigner, 4. Defensive Paranoia, 5. Depression 6. Anxiety 7. Hostility 8. Forbearance and Faith  
 9. Racial-Cultural Support 10. Friends 11. Elder/Mentor Support 12. Family, 13. Conformity, 14. Dissonance, 15. Immersion 16. Resistance 17. Internalization

Table 7.

*Maximum Likelihood Estimates for indicator variables, CFA Proposed Model*

Path	B	S.E.	Beta	C.R.	Sig.
<b>Racism-Related Stress</b>					
Socio-Historical	1.00	0.00	.705		
General Stereotype	.585	.030	.794	19.400	.000
Perpetual Foreigner	.643	.032	.831	19.800	.000
<b>Collectivistic Coping</b>					
Respect Authority	1.00	0.00	.699		
Forbearance	.565	.066	.314	8.556	.000
Social Activity	1.20	.057	.770	20.912	.000
Intercultural Coping	1.30	.060	.826	21.773	.000
Relative Universality	1.70	.074	.900	23.024	.000
Fatalism	.808	.050	.591	16.272	.000
Family	1.11	.305	.131	3.646	.000
<b>Psychological Distress</b>					
Somatization	1.00	0.00	.693		
Interpersonal Sensitivity	1.11	.051	.809	21.895	.000
Depression	1.55	.067	.854	23.110	.000
Anxiety	1.26	.058	.783	21.854	.000
Phobic Anxiety	.734	.036	.730	20.455	.000
Paranoid	1.12	.054	.770	20.882	.000
Obsessive Compulsion	1.63	.073	.816	22.380	.000
Hostility	.982	.048	.752	20.572	.000
Psychoticism	1.15	.052	.813	22.098	.000

Table 8.

*Maximum Likelihood Estimates for Indicator Variables, CFA Best Fitting Model*

Path	B	S.E.	Beta	C.R.	Sig.
<b>Racism-Related Stress</b>					
Socio-Historical	1.00	0.00	.073		
General Stereotype	.592	.031	.802	19.298	.000
Perpetual Foreigner	.644	.032	.826	19.866	.000
<b>Collectivistic Coping</b>					
Forbearance and Faith	1.00	0.00	.568		
Racial-Cultural Support	1.18	.090	.742	13.177	.000
Friends	.802	.056	.769	14.248	.000
Elder/Mentor Support	.602	.042	.741	14.469	.000
Family	.697	.048	.719	14.515	.000
<b>Psychological Distress</b>					
Sensitive Paranoia	1.00	0.00	.866		.000
Depression	1.07	.033	.900	32.649	.000
Anxiety	.515	.020	.769	26.296	.000
Hostility	.345	.015	.702	23.539	.000

Table 9.  
*Fit Indices of Best Fit Measurement Models (N=433)*

Fit Index	Measurement Model CCS	Measurement Model (Modifications) CCS	Measurement Model BSI
Chi square	38.449	290.01	7.872
Df (p value)	3 (<.000)	49 (<.000)	2 (<.02)
CMIN/df	12.6	5.91	3.9
CFI	.96	.95	.99
RMSEA	.16	.76	.08
SRMR	.03	.04	.01

Table 10.  
*Maximum Likelihood Estimates for Hypothesized Paths of the Proposed Structural Model A*

Path	B	S.E.	Beta	C.R.	Sig.
Racism-Related Stress to Psych Distress	.13	.028	.18	4.47	.00
Racism-Related Stress to Collectivistic Coping	.51	.06	.44	9.22	.00
Collectivistic Coping to Psychological Distress	10.72	2.30	.21	4.67	.00

Table 11.  
*Maximum Likelihood Estimates for Hypothesized Paths of the Proposed Path Model B*

Path	B	S.E.	Beta	C.R.	Sig.
Racism-Related Stress to Psych Distress	.13	.029	.18	4.43	.00
Racial Identity to Racism-Related Stress	.01	.002	.20	4.02	.00
Racial Identity to Psychological Distress	1.025	.202	.44	5.06	.00

Table 12.  
Scree Plot for Psychological Distress (BSI)

### Scree Plot

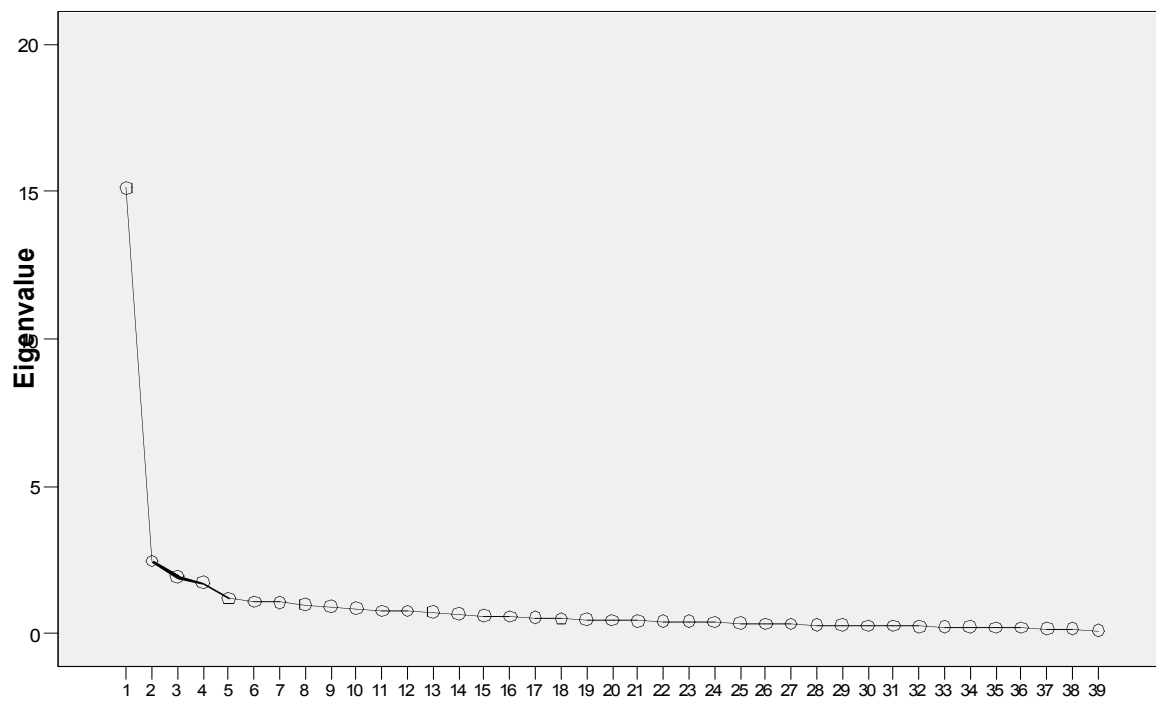


Table 13.  
Scree Plot for Collectivistic Coping (CCS)

### Scree Plot

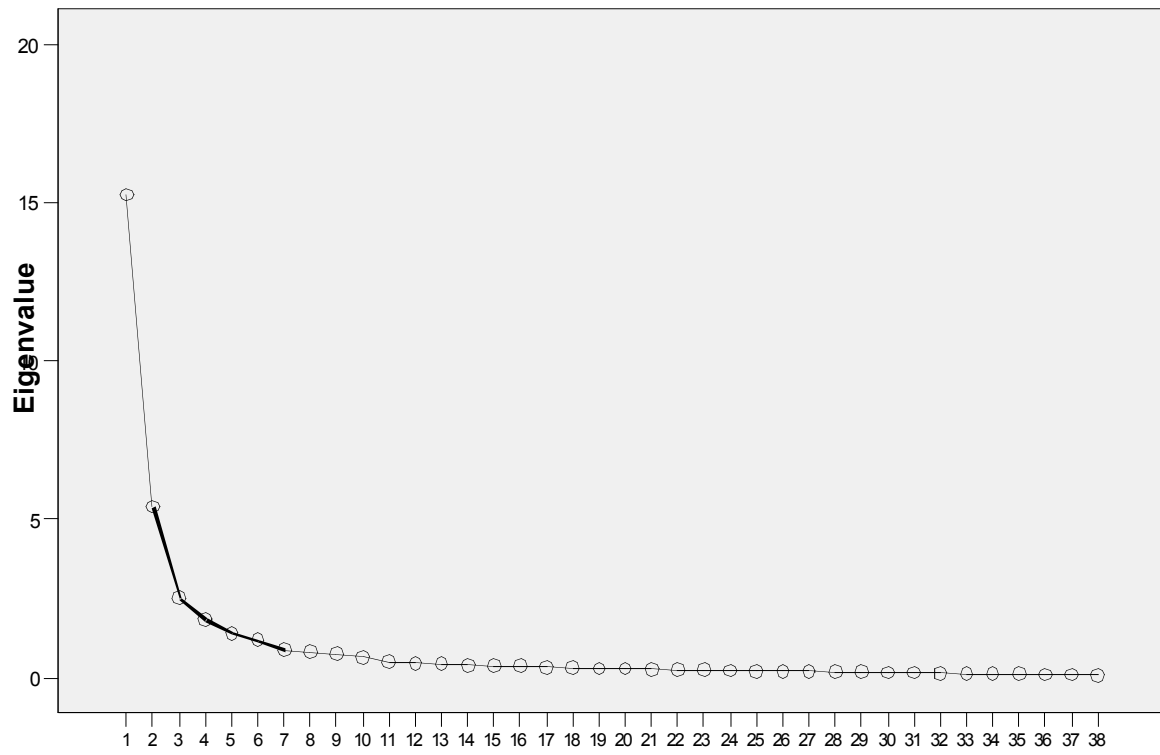
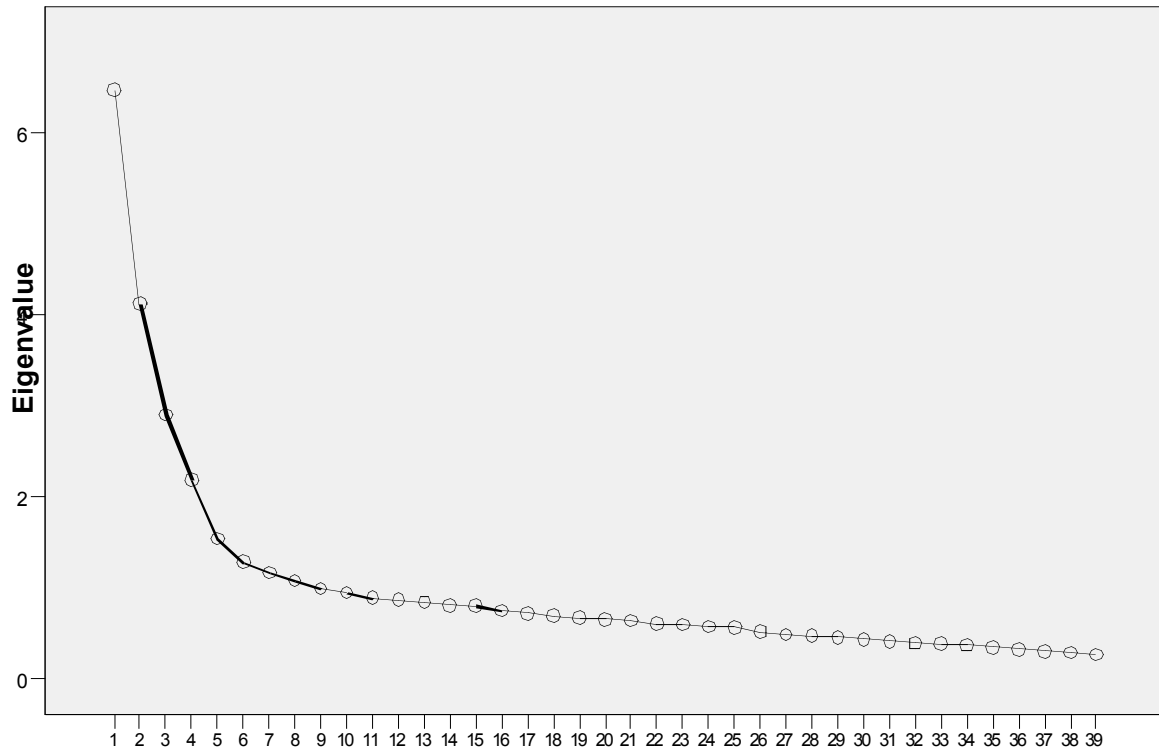


Table 14.  
Scree Plot for Racial Identity Status Attitudes (RIA)

### Scree Plot





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## Appendix A

### POCRIAS Factor Loadings: 5 Factor Solution – Promax Rotation

		Component				
		1	2	3	4	5
<b>Factor 1: Conformity/Preencounter (10 items)</b>						
1	In general, I believe that Whites are superior to other racial groups	.56				
2	I feel more comfortable being around Whites than I do being around people of my own group	.66				
3	In general, people of my race have not contributed very much to American society	.51				
4	Sometimes, I am embarrassed to be the race I am	.58				
5	I would have accomplished more in life if I had been born White	.46				
6	Whites are more attractive than people of my race	.69				
7	People of my race should learn to think and act like Whites	.74				
8	I limit myself to White activities	.68				
35	White people can teach me more about surviving in this world than can people of my race	.39				
46	My values and beliefs match those of Whites more than they do people of my race	.52				
<b>Factor 2: Dissonance (7 items)</b>						
21	I am comfortable wherever I am		-.55			
32	I am embarrassed about some of the things I feel about my people		.77			
33	I have begun to question my beliefs		.68			
36	I don't know whether being the race I am is an asset or a deficit		.56			
39	Thinking about my values and beliefs takes up a lot of my time		.55			
40	I'm not sure how I feel about myself		.73			
43	I feel anxious about some of the things I feel about people of my race		.51			
<b>Factor 3: Resistance (7 items)</b>		1	2	3	4	5
11	When I think about how Whites have treated people of my race, I feel an overwhelming sense of			.62		
14	Most Whites are untrustworthy			.67		
17	Most Whites are insensitive			.63		
18	I reject all White values			.60		
19	My most important goal in life is to fight the oppression of my			.62		

	people	
29	Minorities should not blame Whites for all of their social problems	-.58
47	The way Whites treat people of my race makes me angry	.69

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Factor 4: Internalization (10 items)

12	I want to know more about my culture	.45
16	I am determined to find my cultural identity	.47
20	I believe that my cultural background provides me with many strengths	.50
22	People, regardless of their race, have strengths and limitations	.54
23	I think people of my culture and the White culture differ from each other in some ways	.53
24	My cultural background is a source of pride to me	.54
25	People of my culture and White culture have much to learn from each other	.63
26	White have some customs that I enjoy	.48
28	Every racial group has some good people and some bad people	.57
34	Maybe I can learn something from people of my race	.58

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Factor 5: Immersion (5 items)

10	I feel unable to involve myself in Whites' experiences, and I am increasingly involved with my own racial group	.37	.58
13	I limit myself to activities involving people of my own race		.76
15	American society would be better off if it were based on the cultural values of my people		.40
45	When both White people and people of my race are present in a social situation, I prefer my race		.71
48	I only follow the traditions and customs of people of my racial group		.60

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## Appendix B

## CCS Factor Loadings: 5 Factor Solution – Promax Rotation

		Component				
		1	2	3	4	5
<b>Factor 1: Forbearing and Faith (12 items)</b>						
3	Kept things to myself so I would not worry others	.85				
7	Wanted to maintain social harmony so I kept things inside	.84				
10	Believed things would eventually work themselves out	.64				.39
15	Endured the problem alone so others would not be bothered	.94				
18	Thought problems would likely solve themselves	.76				
20	Told myself that I can overcome the problems so I do not bother others	.93				
22	Tried to convince myself that this problem is part of a larger lesson	.49				
24	Did not express my feelings for fear of burdening others	.90				
26	Downplayed my concerns so others would not be troubled	.87				
27	Believed that there was a hidden meaning behind this problem	.41				
28	Tried to remember that things happen for a reason	.44				
31	Felt that my problems would balance out in the long run	.57				
<b>Factor 2: Seeking Racial-Cultural Support (9 items)</b>						
2	Sought out a member of my racial/cultural group		.84			
5	Talked with a member of my racial/cultural group		.87			
6	Sought out people who could identify with my struggles		.88			
9	Sought advice from someone who had a similar experience		.62			
11	Tried to spend time with people who had experienced similar problems		.64			
12	Tried to find people who could feel connected to my struggle		.75			
14	Shared my feelings or concerns with a member of my racial/cultural group		.88			
19	Spent time with people who could personally relate to my problem		.78			
21	Tried to be understood by a member of my own racial/cultural group		.79			
<b>Factor 3: Socializing with Friends (6 items)</b>						
4	Spent more time doing activities with my friend(s)			.87		
16	Found comfort in being with people			.77		
29	Engaged in an activity with my friend(s)			.89		
33	Attended a social event with my friend(s)			.91		
34	Interacted more with my friend(s)			.92		
39	Did something nice for my friend(s)			.53		

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**Factor 4: Seeking Elder/Mentor Support (5 items)**

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13	Talked with an elder/mentor for guidance	.86
25	Spent more time doing activities with an elder/mentor	.91
32	Shared my problem with an elder/mentor	.86
36	Considered what an elder/mentor would do in my situation	.71
37	Considered advice from an elder/mentor	.84

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**Factor 5: Seeking Family Support (6 items)**

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1	Remembered times I have spent with a family member	.54
8	Talked with a family member	.97
17	Shared my concern with a family member	.96
23	Considered what a family member would do in my situation	.59
30	Considered previous advice from a family member	.68
38	Felt comforted by my family bond	.75

---

## Appendix C

BSI Factor Loadings: 4 Factor Solution – Promax Rotation

		Component			
		1	2	3	4
<b>Factor 1: Defensive/Protective Paranoia (11 items)</b>					
4	Feeling others are to blame for most of your troubles	.68			
10	Feeling that most people cannot be trusted	.68			
14	Feeling lonely even when you are with people	.59			
16	Feeling lonely	.54	.37		
20	Your feelings being easily hurt	.72			
21	Feeling that people are unfriendly or dislike you	.83			
22	Feeling inferior to others	.86			-.37
24	Feeling that you are watched or talked about by others	.46			
42	Feeling very self-conscious with others	.73			
48	Others not giving you proper credit for your achievements	.66			
50	Feelings of worthlessness	.46			
<b>Factor 2: Obsessive Depression (12 items)</b>					
5	Trouble remembering things		.84		
11	Poor appetite		.41		
18	Feeling no interest in things		.53		
25	Trouble falling asleep		.47		
26	Having to check and double check what you do		.51		
27	Difficulty making decisions		.71		
32	Your mind going blank		.96		
36	Trouble concentrating		.77		
37	Feeling weak in parts of your body		.54		
44	Never feeling close to another person		.49		
52	Feeling of guilt		.63		
53	The idea that something is wrong with your mind		.59		
<b>Factor 3: Anxiety (10 items)</b>					
7	Pains in the heart or chest			.48	
8	Feeling afraid in open spaces			.75	
12	Suddenly scared for no reason			.61	
19	Feeling fearful			.55	
28	Feeling afraid to travel on buses, subways, or trains			.90	



29	Trouble getting your breath		.50
30	Hot or cold spells		.63
31	Having to avoid certain things, places, or activities because they frighten you		.70
45	Spells of terror or panic		.74
47	Feeling nervous when you are left alone		.53

---

Factor 4: Hostility (6 items)

9	Thoughts of ending your life		.68
13	Temper outbursts that you could not control	.35	.74
40	Having urges to beat, injure, or harm someone		.95
41	Having urges to break or smash things		.95
46	Getting into frequent arguments		.41
49	Feeling so restless you couldn't sit still		.40

---

### Exploratory Factor Analysis

In order to confirm if the observed indicators measured their respective underlying factors, three principle-components factor analysis (two with Promax, one with Varimax rotation) were performed to confirm the underlying structure of each of the latent variables (refer to Instrumentation section earlier in the Chapter). The results of the factor analysis confirmed the three underlying latent constructs; however the respective indicators (e.g. observed variables) for Collectivistic Coping and Psychological Distress were modified.

## Appendix D

## Introductory Letter to Prospective Participant

Dear Participant,

I am writing to invite you to participate in a study for my doctoral dissertation examining Asian Americans' social attitudes and experiences in contemporary American society. I am interested in the extent to which Asian Americans living in the United States perceive, and are impacted by racial-cultural factors in the U.S. as well as reactions to these perceptions and experiences.

I am a fifth year doctoral student in the Counseling Psychology Program at Teachers College, Columbia University, and I was given your name and email address by a friend who thought you might be interested in participating in this short survey study. If you are not interested in participating in this study, please disregard this email and accept my apologies for your inconvenience.

If you are willing to participate in this study, please go to the following web address: xxx.com. You will be asked to respond to several short surveys, which should take approximately 20 to 25 minutes (total) to complete. A number of safeguards will be in place to protect your identity. The information you provide will be kept anonymous and confidential on an encrypted and secure database online. No names will be associated with the data at any time; all data will be coded with a number to preserve anonymity. The results of the study may be presented in my final dissertation and subsequent journal articles, but individual participants will never be identified.

In thanks for the contribution of your time, all participants will be automatically enrolled in a raffle for a \$50 amazon.com gift certificate and a \$50 itunes gift certificate. Your name will be automatically enrolled in the raffle upon submission of your informed consent form before responding to the surveys. Your name and email will then be replaced with a numerical code so as to ensure anonymity.

Thank you very much for your consideration of this invitation!

Best regards,

Nancy Cha, M.Ed.  
Doctoral Candidate in Counseling Psychology  
Department of Counseling and Clinical Psychology  
Teachers College, Columbia University  
710 Amsterdam Ave  
New York, NY 10025  
(831) 818-3523

## APPENDIX E

CONSENT FORM  
PARTICIPANT/SUBJECT RIGHTS AS A RESEARCH SUBJECT  
LETTER OF INFORMED CONSENT

PRINCIPAL INVESTIGATOR:  
Nancy Cha, M.Ed.

May 28, 2009

Dear Participant,

DESCRIPTION OF THE RESEARCH: You are invited to participate in a research study examining Asian Americans' social attitudes and experiences in contemporary American society. I am interested in the extent to which Asian Americans living in the United States perceive, and are impacted by racial-cultural factors in the U.S. as well as reactions to these perceptions and experiences. You will be asked to complete several surveys online. I encourage you to answer openly and honestly to the questions in our interview, as your responses may inform future projects.

RISKS AND BENEFITS: There are no foreseeable physical risks associated with your participation. Participants may feel discomfort while sharing information on sensitive issues such as experiences with racism. If such discomfort should arise, participants can discontinue their participation in the study at any time without jeopardy. Some participants might experience a feeling of relief after sharing their experience in a low-risk, anonymous manner. Participants may also gain personal satisfaction from contributing to the body of knowledge on issues related to social attitudes of Asian Americans to inform psychological practice.

PAYMENTS: In thanks for the contribution of your time, all participants will be automatically enrolled in a raffle for a \$50 amazon.com gift certificate and a \$50 itunes gift certificate. Your name will be automatically enrolled in the raffle upon submission of your informed consent form before responding to the surveys. You will have a 2 in 300 chance (or 1 in 150 chance) odds of winning. Your name and email will then be replaced with a numerical code so as to ensure anonymity.

DATA STORAGE TO PROTECT CONFIDENTIALITY: All information that you, as a participant, provide will be kept anonymous and confidential, as required by law. Only the researcher mentioned above will have access to the information that participants offer. All personal information provided by the participants will be kept private. Each survey packet will be numerically coded to ensure anonymity. Codes will not be published nor shared with anyone outside of the research team, and will only be used for categorical purposes. All materials (consent forms etc.) will be locked in a file cabinet that will be stored in a locked room. Access to the material will be permitted only in circumstances where the data needs to be verified for data entry purposes.

TIME INVOLVEMENT: Your participation will take approximately 20-25 minutes.

HOW WILL RESULTS BE USED: The results of the study will be used to inform my doctoral dissertation.

If you would like further information regarding your rights as a research participant, you may contact the

Institutional Review Board at Teachers College, Columbia University, 525 W. 120<sup>th</sup> Street, New York, NY 10027, or by phoning (212) 678-4106. You may also contact me at the phone number provided below.

Sincerely,

---

Nancy Cha, M.Ed.  
Doctoral Candidate in Counseling Psychology  
Department of Counseling and Clinical Psychology  
Teachers College, Columbia University  
710 Amsterdam Ave  
New York, NY 10025  
(757) 630-6693

**BY PRINTING YOUR NAME BELOW, YOU ARE AGREEING TO PARTICIPATE IN THIS STUDY:**

---

I understand my rights as a participant in this research study.

Participant's name: \_\_\_\_\_ Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

## Appendix F

## Asian American Racism-Related Stress Inventory (AARRSI)

Christopher T. H. Liang, Lisa C. Li, and Bryan S. K. Kim

Instructions: Please read each item and choose a response that best represents your reaction. 1 = This has never happened to me or someone I know, 2 = This event happened but did not bother me, 3 = This event happened and I was slightly bothered, 4 = This event happened and I was upset, 5 = This event happened and I was extremely upset.

- |  |           |
|--|-----------|
| 1) You hear about a racially motivated murder of an Asian American man.  | 1 2 3 4 5 |
| 2) You hear that Asian Americans are not significantly represented in management positions.  | 1 2 3 4 5 |
| 3) You are told that Asians have assertiveness problems.   | 1 2 3 4 5 |
| 4) You notice that Asian characters in American TV shows either speak bad or heavily accented English.   | 1 2 3 4 5 |
| 5) You notice that in American movies, male Asian leading characters never engage in physical contact (kissing, etc.) with leading female characters even when the plot would seem to call for it. | 1 2 3 4 5 |
| 6) Someone tells you that the kitchens of Asian families smell/are dirty.  | 1 2 3 4 5 |
| 7) You notice that U.S. history books offer no information of the contributions of Asian Americans.  | 1 2 3 4 5 |
| 8) You see a TV commercial in which an Asian character speaks bad English and acts subservient to non-Asian characters.  | 1 2 3 4 5 |
| 9) You hear about an Asian American government scientist held in solitary confinement for mishandling government documents when his non-Asian coworkers were not punished for the same offence.    | 1 2 3 4 5 |
| 10) You learn that Asian Americans historically were targets of racist actions   | 1 2 3 4 5 |
| 11) You learn that most non-Asian Americans are ignorant of the oppression and racial prejudice Asian Americans have endured in the U.S.   | 1 2 3 4 5 |
| 12) At a restaurant you notice that a White couple who came in after you is served before you.   | 1 2 3 4 5 |

- 13) You learn that, while immigration quotas on Asian peoples were severely restricted until the latter half of the 1900s, quotas for European immigrants were not. 1 2 3 4 5
- 14) Someone tells you that it's the Blacks that are the problem, not the Asians. 1 2 3 4 5
- 15) A student you do not know asks you for help in math. 1 2 3 4 5
- 16) Someone tells you that they heard that there is a gene that makes Asians smart. 1 2 3 4 5
- 17) Someone asks you if you know his or her Asian friend/coworker/classmate. 1 2 3 4 5
- 18) Someone assumes that they serve dog meat in Asian restaurants. 1 2 3 4 5
- 19) Someone tells you that your Asian American female friend looks just like Connie Chung. 1 2 3 4 5
- 20) Someone you do not know speaks slow and loud at you. 1 2 3 4 5
- 21) Someone asks you if all your friends are Asian Americans. 1 2 3 4 5
- 22) Someone asks you if you can teach him/her karate. 1 2 3 4 5
- 23) Someone tells you that "you people are all the same." 1 2 3 4 5
- 24) Someone tells you that all Asian people look alike. 1 2 3 4 5
- 25) Someone tells you that Asian Americans are not targets of racism. 1 2 3 4 5
- 26) Someone you do not know asks you to help him/her fix his/her computer. 1 2 3 4 5
- 27) You are told that "you speak English so well." 1 2 3 4 5
- 28) Someone asks you what your real name is. 1 2 3 4 5
- 29) You are asked where you are really from. 1 2 3 4 5

## Appendix G

## Collectivistic Coping Scale (CCS)

We are interested in how people cope with racism. Think of a problem you have encountered in recent months (i.e. within 6 months) that has impacted you. Keeping this problem in mind, please indicate how you coped by rating the extent to which you used each of the coping strategies described in the statements below.

Think about a problem regarding race/racism you encountered in recent months. Keeping this problem in mind, please indicate how you coped by rating the extent to which you used each of the coping strategies described in the statements below (select only one number). Answer each question even though some may seem similar.

	<b>Not Used</b>		<b>Used A Little</b>		<b>Used Moderately</b>		<b>Used A Great Deal</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
1. Remembered times I have spent with a family member	1	2	3	4	5	6	7
2. Sought out a member of my racial/cultural group	1	2	3	4	5	6	7
3. Kept things to myself so I would not worry others	1	2	3	4	5	6	7
4. Spent more time doing activities with my friend(s)	1	2	3	4	5	6	7
5. Talked with a member of my racial/cultural group	1	2	3	4	5	6	7
6. Sought out people who could identify with my struggles	1	2	3	4	5	6	7
7. Wanted to maintain social harmony so I kept things inside	1	2	3	4	5	6	7
8. Talked with a family member	1	2	3	4	5	6	7
9. Sought advice from someone who had a similar experience	1	2	3	4	5	6	7
10. Believed things would eventually work themselves out	1	2	3	4	5	6	7
11. Tried to spend time with people who had experienced similar problems	1	2	3	4	5	6	7
12. Tried to find people who could feel connected to my struggle	1	2	3	4	5	6	7

Not Used 1	2	Used A Little 3	4	Used Moderately 5	6	Used A Great Deal 7			
13. Talked to an elder/mentor for guidance			1	2	3	4	5	6	7
14. Shared my feelings or concerns with a member of my racial/cultural group			1	2	3	4	5	6	7
15. Endured problem alone so others would not be bothered			1	2	3	4	5	6	7
16. Found comfort in being with people with shared experiences			1	2	3	4	5	6	7
17. Shared my concern with a family member			1	2	3	4	5	6	7
18. Think problems tend to solve themselves			1	2	3	4	5	6	7
19. Spent time with people who could personally relate to my problem			1	2	3	4	5	6	7
20. Tell self that I can overcome the problem so I do not bother others			1	2	3	4	5	6	7
21. Tried to be understood by a member of my own racial/cultural group			1	2	3	4	5	6	7
22. Tried to convince myself that this problem is part of a larger lesson			1	2	3	4	5	6	7
23. Considered what a family member would do in my situation			1	2	3	4	5	6	7
24. Did not express my feelings for fear of burdening others			1	2	3	4	5	6	7
25. Spent more time doing activities with an elder/mentor			1	2	3	4	5	6	7
26. Downplayed my concerns so others would not be troubled			1	2	3	4	5	6	7
27. Believed that there was a hidden meaning behind this problem			1	2	3	4	5	6	7
28. Tried to remember that things happen for a reason			1	2	3	4	5	6	7
29. Engaged in an activity with my friend(s)			1	2	3	4	5	6	7
30. Considered previous advice from a family Member			1	2	3	4	5	6	7



31. Felt that my problems would balance out in the long run	1	2	3	4	5	6	7
32. Shared my problem with an elder/mentor	1	2	3	4	5	6	7
33. Attended a social event with my friend(s)	1	2	3	4	5	6	7
34. Interacted more with my friend(s)	1	2	3	4	5	6	7
35. Considered what an elder/mentor would do in my situation	1	2	3	4	5	6	7
36. Considered what an elder/mentor would do in my situation	1	2	3	4	5	6	7
37. Considered advice from an elder/mentor	1	2	3	4	5	6	7
38. Felt comforted by my family bond	1	2	3	4	5	6	7
39. Did something nice for my friend(s)	1	2	3	4	5	6	7

## Appendix H

**Brief Symptom Inventory**

Instructions: Below are a list of problems people sometimes have in response to experiences with racism. As you read each one, indicate *how much* that problem has distressed or bothered you during the past SEVEN DAYS including today.

1	2	3	4	5
Not at all	A little bit	Moderately	Quite a bit	Extremely

DURING THE PAST 7 DAYS, how much were you distressed by:

1. Nervousness or shakiness inside	1	2	3	4	5
2. Faintness or dizziness	1	2	3	4	5
3. The idea that someone else can control your thoughts	1	2	3	4	5
4. Feeling others are to blame for most of your troubles	1	2	3	4	5
5. Trouble remembering things	1	2	3	4	5
6. Feeling easily annoyed or irritated	1	2	3	4	5
7. Pains in the heart or chest	1	2	3	4	5
8. Feeling afraid in open spaces	1	2	3	4	5
9. Thoughts of ending your life	1	2	3	4	5
10. Feeling that most people cannot be trusted	1	2	3	4	5
11. Poor appetite	1	2	3	4	5
12. Suddenly scared for no reason	1	2	3	4	5
13. Temper outbursts that you could not control	1	2	3	4	5
14. Feeling lonely even when you are with people	1	2	3	4	5
15. Feeling blocked in getting things done	1	2	3	4	5
16. Feeling lonely	1	2	3	4	5
17. Feeling blue	1	2	3	4	5
18. Feeling no interest in things	1	2	3	4	5
19. Feeling fearful	1	2	3	4	5
20. Your feelings being easily hurt	1	2	3	4	5
21. Feeling that people are unfriendly or dislike you	1	2	3	4	5
22. Feeling inferior to others	1	2	3	4	5
23. Nausea or upset stomach	1	2	3	4	5
24. Feeling that you are watched or talked about by others	1	2	3	4	5
25. Trouble falling asleep	1	2	3	4	5
26. Having to check and double check what you do	1	2	3	4	5
27. Difficulty making decisions	1	2	3	4	5
28. Feeling afraid to travel on buses, subways, or trains	1	2	3	4	5
29. Trouble getting your breath	1	2	3	4	5
30. Hot or cold spells	1	2	3	4	5

31. Having to avoid certain things, places or activities because they frighten you	1	2	3	4	5
32. Your mind going blank	1	2	3	4	5
33. Numbness or tingling in parts of your body	1	2	3	4	5
34. The idea that you should be punished for your sins	1	2	3	4	5
35. Feeling hopeless about the future	1	2	3	4	5
36. Trouble concentrating	1	2	3	4	5
37. Feeling weak in parts of your body	1	2	3	4	5
38. Feeling tense or keyed up	1	2	3	4	5
39. Thoughts of death or dying	1	2	3	4	5
40. Having urges to beat, injure, or harm someone	1	2	3	4	5
41. Having urges to break or smash things	1	2	3	4	5
42. Feeling very self-conscious with others	1	2	3	4	5
43. Feeling uneasy in crowds	1	2	3	4	5
44. Never feeling close to another person	1	2	3	4	5
45. Spells of terror or panic	1	2	3	4	5
46. Getting into frequent arguments	1	2	3	4	5
47. Feeling nervous when you are left alone	1	2	3	4	5
48. Others not giving you proper credit for your achievements	1	2	3	4	5
49. Feeling so restless you couldn't sit still	1	2	3	4	5
50. Feelings of worthlessness	1	2	3	4	5
51. Feeling that people will take advantage of you if you let them	1	2	3	4	5
52. Feeling of guilt	1	2	3	4	5
53. The idea that something is wrong with your mind	1	2	3	4	5

## Appendix I

**Social Attitudes Inventory (Form N)**

Instructions: This questionnaire is designed to measure people's social and political attitudes concerning race and ethnicity. Since different people have different opinions, there are no right or wrong answers. Use the scale below to respond to each statement according to the way you see things. Be as honest as you can. Beside each item number, circle the number that best describes how you feel.

1	2	3	4	5
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

(Circle here)

- |   |   |   |   |   |  |
|---|---|---|---|---|--|
| 1 | 2 | 3 | 4 | 5 | 1. In general, I believe that Whites are superior to other racial groups.  |
| 1 | 2 | 3 | 4 | 5 | 2. I feel more comfortable being around Whites than I do being around people of my own race.   |
| 1 | 2 | 3 | 4 | 5 | 3. In general, people of my race have not contributed very much to American society.   |
| 1 | 2 | 3 | 4 | 5 | 4. Sometimes, I am embarrassed to be the race I am.  |
| 1 | 2 | 3 | 4 | 5 | 5. I would have accomplished more in this life if I had been born White.   |
| 1 | 2 | 3 | 4 | 5 | 6. Whites are more attractive than people of my race.  |
| 1 | 2 | 3 | 4 | 5 | 7. People of my race should learn to think and act like Whites.  |
| 1 | 2 | 3 | 4 | 5 | 8. I limit myself to White activities.   |
| 1 | 2 | 3 | 4 | 5 | 9. I think racial minorities blame Whites too much for their problems.   |
| 1 | 2 | 3 | 4 | 5 | 10. I feel unable to involve myself in Whites' experiences, and I am increasing my involvement in experiences involving people of my race. |
| 1 | 2 | 3 | 4 | 5 | 11. When I think about how Whites have treated people of my race, I feel an overwhelming anger.  |

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

(Circle here)

- |   |   |   |   |   |  |
|---|---|---|---|---|--|
| 1 | 2 | 3 | 4 | 5 | 12. I want to know more about my culture.  |
| 1 | 2 | 3 | 4 | 5 | 13. I limit myself to activities involving people of my own race.  |
| 1 | 2 | 3 | 4 | 5 | 14. Most Whites are untrustworthy.   |
| 1 | 2 | 3 | 4 | 5 | 15. American society would be better off if it were based on the cultural values of my people.                             |
| 1 | 2 | 3 | 4 | 5 | 16. I am determined to find my cultural identity.  |
| 1 | 2 | 3 | 4 | 5 | 17. Most Whites are insensitive.   |
| 1 | 2 | 3 | 4 | 5 | 18. I reject all White values.   |
| 1 | 2 | 3 | 4 | 5 | 19. My most important goal in life is to fight the oppression of my people.  |
| 1 | 2 | 3 | 4 | 5 | 20. I believe that my cultural background provides me with many strengths.   |
| 1 | 2 | 3 | 4 | 5 | 21. I am comfortable wherever I am.  |
| 1 | 2 | 3 | 4 | 5 | 22. People, regardless of their race, have strengths and limitations.  |
| 1 | 2 | 3 | 4 | 5 | 23. I think people of my culture and the White culture differ from each other in some ways, but neither group is superior. |
| 1 | 2 | 3 | 4 | 5 | 24. My cultural background is a source of pride to me.   |
| 1 | 2 | 3 | 4 | 5 | 25. People of my culture and White culture have much to learn from each other.   |
| 1 | 2 | 3 | 4 | 5 | 26. Whites have some customs that I enjoy.   |
| 1 | 2 | 3 | 4 | 5 | 27. I enjoy being around people regardless of their race.  |
| 1 | 2 | 3 | 4 | 5 | 28. Every racial group has some good people and some bad people.   |

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

(Circle here)

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 29. Minorities should not blame Whites for all of their social problems.  |
| 1 | 2 | 3 | 4 | 5 | 30. I do not understand why Whites treat minorities as they do.   |
| 1 | 2 | 3 | 4 | 5 | 31. I am embarrassed about some of the things I feel about my people.   |
| 1 | 2 | 3 | 4 | 5 | 32. I'm not sure where I really belong.   |
| 1 | 2 | 3 | 4 | 5 | 33. I have begun to question my beliefs.  |
| 1 | 2 | 3 | 4 | 5 | 34. Maybe I can learn something from people of my race.   |
| 1 | 2 | 3 | 4 | 5 | 35. White people can teach me more about surviving in this world than can people of my own race, but people of my race can teach me more about being human. |
| 1 | 2 | 3 | 4 | 5 | 36. I don't know whether being the race I am is an asset or a deficit.  |
| 1 | 2 | 3 | 4 | 5 | 37. Sometimes I think Whites are superior and sometimes I think they're inferior to people of my race.  |
| 1 | 2 | 3 | 4 | 5 | 38. Sometimes I am proud of the racial group to which I belong and sometimes I am ashamed of it.  |
| 1 | 2 | 3 | 4 | 5 | 39. Thinking about my values and beliefs takes up a lot of my time.   |
| 1 | 2 | 3 | 4 | 5 | 40. I'm not sure how I feel about myself.   |
| 1 | 2 | 3 | 4 | 5 | 41. White people are difficult to understand.   |
| 1 | 2 | 3 | 4 | 5 | 42. I find myself replacing old friends with new ones who are from my culture.  |
| 1 | 2 | 3 | 4 | 5 | 43. I feel anxious about some of the things I feel about people of my race.   |

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree

(Circle here)

- 1 2 3 4 5 44. When someone of my race does something embarrassing in public, I feel embarrassed.
- 1 2 3 4 5 45. When both White people and people of my race are present in a social situation, I prefer to be with my own racial group.
- 1 2 3 4 5 46. My values and beliefs match those of Whites more than they do people of my race.
- 1 2 3 4 5 47. The way Whites treat people of my race makes me angry.
- 1 2 3 4 5 48. I only follow the traditions and customs of people of my racial group.
- 1 2 3 4 5 49. When people of my race act like Whites I feel angry.
- 1 2 3 4 5 50. I am comfortable being the race I am.

## Appendix J

*Normality Statistics for All Variables*

Variable	Min	Max	Skew	c.r.	Kurtosis	c.r.
Socio-Historical Racism	15	70	-.117	-1.409	-.798	-4.807
General Stereotype Racism	8	40	.885	10.662	.707	4.259
Perpetual Foreigner Racism	7	35	.538	7.024	-.393	-3.783
Forbearance and Faith	12	84	.450	5.421	-.628	-3.783
Racial Cultural Support	9	63	.080	9.638	-1.069	-6.439
Friends Support	6	42	.030	3.614	-1.124	-6.771
Elder/Mentor Support	5	35	.810	9.795	-.472	-2.843
Family Support	6	42	.511	6.638	-.815	-4.909
Sensitive Paranoia	11	47	1.701	20.493	2.808	16.915
Depression	12	55	1.960	23.614	4.442	26.759
Anxiety	10	46	3.403	41	15.391	92.71
Hostility	6	30	2.969	35.771	11.367	68.475
Confirmity	10	42	.883	10.638	.878	5.289
Dissonance	7	33	.343	4.132	-.379	-2.283
Resistance	7	34	.706	8.506	.550	3.313
Immersion	5	22	.132	1.590	-.372	-2.240
Internalization	18	50	-.786	-9.469	.881	4.885

*Note.* Skewness and kurtosis critical ratios are similar to z-score indices (statistic relative to its standard error, see Kline, 2005); values > |1.96| are considered significant.

## Outliers and Normality Assumptions

The study data assessed for both univariate and multivariate outliers. Testing for univariate outliers was done by examining the data graphically using box plots and histograms to visually identify cases potentially more than 3 standard deviations away from the mean. In addition z scores were created for each instrument with interval level data. Z scores of greater than  $\pm 3.29$  ( $p=.001$ ) were considered to be potential outliers.

Multivariate normality is a common assumption in the data of SEM. It means that all univariate distributions are normal, that the linear combinations of the variables are normal and that all bivariate scatterplots are linear and homoscedastic (Kline, 2005). Most instances of multivariate non-normality can be detected by careful examination of univariate distributions, which was done by examining the skewness and kurtosis of each measured variable. Appendix J



depicts the normality statistics for all variables and indicates that while some variables had a skew or kurtosis on the borderline, they were appropriate for the sample.

#### Normality: Skew and Kurtosis

Skewness and kurtosis were evaluated using three methods: determining the standardized skew/kurtosis (comparing the resulting standardized score with a two-tailed test of significance), examining absolute, not standardized values of skew and kurtosis, and by graphically screening the residuals. Traditional maximum likelihood methods of SEM assume that the continuous variables in the model are multivariately normally distributed. Skewness and kurtosis z-score indices for each variable were presented in Table 9. According to the critical ratio of skewness, where an index greater than 3.0 is considered “extremely skewed” by some authors, compared to its standard error, several of the observed variables are not normal and resulted in values beyond an absolute value of |1.96|. However, Kline (2005) states as a conservative rule of them, absolute values of the kurtosis index greater than 10.0 may suggest a problem and values greater than 20.0 may indicate a more serious one.

Inspection of the independent variables revealed that none of the variables comprising racism-related stress, collectivistic coping or racial identity had significant skew or kurtosis. Each of the psychological distress symptoms, which comprise the dependent variable, was significantly skewed and had significant kurtosis.

While some of the variables had skew and kurtosis that were statistically significant, it has been noted that with relatively large sample sizes, it is more important to evaluate the actual values of skew/kurtosis, and to examine the visual appearance of the distribution. Variables with actual skew  $> 2$ ; or actual kurtosis  $> 7$  are considered to deviate enough from normality to make

a substantive difference in the analysis (Finch, West, & MacKinnon, 1997). Two of the variables Anxiety (actual skew = 3.40, std. skew = .08) and Hostility (actual skew = 15.39, std skew = .16) had skew and kurtosis exceeding 2 for skew or 7 for kurtosis. However, again given the way we understand Psychological Distress, these skews are appropriate for the sample.

## Appendix K

*Means and Standard Deviations of Racism-Related Stress Variables by Ethnicity*

Total N=866	Racism-Related Stress						
	N	Socio-Hist		Gen Stereotype		Perpetual Foreigner	
		M	SD	M	SD	M	SD
Ethnicity							
Chinese	240	47.07	12.19	17.52	6.70	18.39	7.13
Korean	174	45.65	10.77	18.64	6.00	19.61	5.95
Filipino/PI	101	45.67	12.51	18.17	6.03	18.01	6.27
Southeast Asian	75	44.17	11.85	17.93	5.92	18.14	5.92
Taiwanese	68	41.16	10.95	16.08	4.91	17.20	5.71
Japanese	57	48.08	11.81	16.54	7.11	18.21	6.78
Vietnamese	43	47.25	10.41	19.58	5.43	19.34	7.12
South Asian	75	42.61	11.41	15.70	4.90	16.35	6.26
Other	51	46.27	12.59	17.90	7.97	17.78	7.53

Significance at  $p < .05$

Using Wilks's statistic, which indicates the unexplained variance on each variate, there was a significant effect of ethnicity on racism-related stress for Asian Americans ( $\Lambda = .937$ ,  $F(24, 2480) = 2.33$ ,  $p < .021$ ,  $\eta^2 = .021$ ). Post hoc comparisons employed the Games Howell test statistic because it takes into account unequal group sizes, and were used to test racism-related stress. The Post hoc comparisons found significant differences between several ethnic groups among Socio-historical Racism, General Stereotype Racism, and Perpetual Foreigner Racism.

Appendix K shows the mean differences such that Chinese Americans ( $M = 47.07$ ) and Japanese Americans ( $M = 48.08$ ) experienced more socio-historical racism than did Taiwanese ( $M = 41.16$ ,  $p = .006$  and  $p = .027$ ). Korean ( $M = 18.64$ ) and Vietnamese ( $M = 19.58$ ) participants experienced more general stereotyping racism than South Asian (Indian) participants ( $M = 15.70$ ,  $p = .009$  and  $p = .012$ ). Similarly, Koreans ( $M = 18.64$ ) had significantly higher mean scores than Taiwanese ( $M = 16.08$ ,  $p = .023$ ) and Vietnamese ( $M = 19.58$ ) report more general stereotyping than Taiwanese ( $M = 16.08$ ,  $p = .026$ ). Lastly Koreans ( $M = 19.61$ ) report experiencing more Perpetual Foreigner stereotyping than South Asians ( $M = 16.35$ ,  $p = .023$ ).

## Appendix L

*Means and Standard Deviations of People of Color Racial Identity Attitudes Variables by Ethnicity*

Total N=866	Racism-Related Stress								
	Conformity		Dissonance		Immersion/ Resistance		Internalization		
	N	M	SD	M	SD	M	SD	M	SD
Ethnicity									
Chinese	240	18.85	5.21	40.10	8.21	32.82	7.94	42.35	4.80
Korean	174	19.37	5.37	39.18	7.85	30.57	7.26	42.27	4.50
Filipino/PI	101	17.99	6.01	39.11	7.95	31.77	7.72	42.30	3.90
Southeast Asian	75	22.37	6.69	41.29	8.18	34.84	5.24	43.04	3.87
Taiwanese	68	19.11	5.79	40.50	8.24	30.08	5.60	42.29	3.89
Japanese	57	16.42	5.62	36.28	7.97	31.28	8.05	43.14	4.58
Vietnamese	43	18.76	5.05	38.46	8.08	32.02	6.69	42.20	3.92
South Asian	75	18.05	5.75	39.91	7.65	31.70	5.94	43.31	4.36
Other	51	17.29	4.67	37.68	10.42	31.03	6.66	42.68	5.20

Significance at  $p < .05$

The MANOVA revealed significant ethnic differences on the racial identity status attitude scale ( $\Lambda = .891$ ,  $F(32, 3150) = 3.12$ ,  $p < .000$ ,  $\eta^2 = .028$ ). Post hoc comparisons using Games Howell yielded significant differences amongst ethnic groups across three of the four POCRIAS subscales: Conformity, Dissonance and Immersion/Resistance. Appendix L shows the mean differences such that for the conformity subscale, Southeast Asians ( $M = 22.37$ ) may reject their own racial group and have preferences for the dominant racial group more than Chinese ( $M = 18.85$ ,  $p = .002$ ), Indians ( $M = 18.05$ ,  $p = .004$ ), Filipinos/Pacific Islanders ( $M = 17.99$ ,  $p = .000$ ), Koreans ( $M = 19.37$ ,  $p = .023$ ), Japanese ( $M = 16.42$ ,  $p = .000$ ), Vietnamese ( $M = 18.76$ ,  $p = .034$ ) and Others ( $M = 17.29$ ,  $p = .000$ ). Similarly, Koreans ( $M = 19.37$ ) also had higher mean scores than Japanese ( $M = 16.42$ ,  $p = .021$ ).

For the Dissonance subscale, Chinese ( $M = 40.10$ ) participants may feel more ambivalence or conflict about their racial and cultural attitudes and sense of belonging to either the majority group or her or her own racial group more so than Japanese ( $M = 36.28$ ,  $p = .044$ ).

However, Southeast Asians ( $M=22.37$ ) and Chinese ( $M=40.10$ ) have significantly higher mean scores than Japanese participants ( $M=36.28$ ,  $p = .016$ ) and ( $p = .016$ ).

On the Immersion/Resistance subscale, again, South Asians ( $M=34.84$ ) may idealize and immerse themselves in their own race and culture while rejecting and holding negative attitudes about the dominant society more so than Koreans ( $M=30.57$ ,  $p = .000$ ), Taiwanese ( $M=30.08$ ,  $p = .000$ ) and Others ( $M=31.03$ ,  $p = .026$ ). There were no significant mean differences on the Internalization subscale. The MANOVA showed significant ethnic differences on collectivistic coping ( $\Lambda = .863$ ,  $F(56, 4588) = 2.27$ ,  $p < .000$ ,  $\eta^2 = .021$ ). Post hoc comparisons using Games Howell yielded significant differences amongst ethnic groups across Respect for Authority, Forbearance, Social Activity, Intercultural Coping, Relative Universality, Fatalism and Family subscales.

The theme of the Collectivistic Coping (CCS) measure, Southeast Asians and Filipino/Pacific Islanders scores significantly higher than several ethnic groups across many of the subscales. Appendix M shows the mean differences such that for the Respect Authority subscale, Southeast Asians ( $M = 15.45$ ) cope by relying on elders or authority figures in the community more than Chinese ( $M=11.75$ ,  $p = .028$ ), Koreans ( $M=11.49$ ,  $p = .015$ ) and Taiwanese ( $M=10.47$ ,  $p = .010$ ). Similarly, Filipinos/Pacific Islanders had higher mean scores than Taiwanese ( $M=10.47$ ,  $p = .032$ ). On the Forbearance subscale, Southeast Asians ( $M = 21.34$ ) tend to not share problems and endure in the face of adversity in order to maintain harmony more than Japanese ( $M=15.47$ ,  $p = .031$ ) and Koreans ( $M=17.20$ ,  $p = .005$ ). For the Social Activity subscale Southeast Asians ( $M = 21.56$ ) coping through social supports more than Chinese ( $M=16.40$ ,  $p = .005$ ), Indians ( $M=15.43$ ,  $p = .013$ ), Koreans ( $M=16.44$ ,  $p = .008$ ) and Taiwanese ( $M=14.85$ ,  $p = .003$ ). Additionally, Filipino/Pacific Islanders ( $M = 19.94$ ) also had

higher mean scores than Chinese ( $M=16.4, p = .010$ ), Koreans ( $M=16.44, p = .018$ ) and Taiwanese ( $M=14.85, p = .008$ ).

With respect to Intercultural Coping, Filipino/Pacific Islanders ( $M = 20.08$ ) tend to cope through support networks with others who are racially similar more than Chinese ( $M=16.75, p = .042$ ) and Taiwanese ( $M=15.89, p = .047$ ). For the Relative Universality subscale, Filipino/Pacific Islanders ( $M = 26.30$ ) seek support from people who have experienced similar problems more so than Chinese ( $M=20.22, p = .001$ ), Indians ( $M=20.50, p = .012$ ), Koreans ( $M = 21.83, p = .010$ ) and Taiwanese ( $M=18.57, p = .000$ ). Additionally Southeast Asians ( $M = 24.28$ ) also had significantly higher mean scores than Taiwanese ( $M=18.57, p = .022$ ) for Relative Universality. For the Fatalism subscale, Southeast Asians ( $M = 19.42$ ) accept problems as predetermined or beyond their power to change more so than Chinese ( $M=14.53, p = .000$ ), Indians ( $M=14.85, p = .022$ ), Japanese ( $M=14.56, p = .017$ ), Korean ( $M=15.66, p = .010$ ), Taiwanese ( $M=13.10, p = .000$ ) and Vietnamese ( $M=14.30, p = .020$ ). Lastly, for the Family subscale Southeast Asians ( $M = 23.40$ ) prefer talking with and getting help from their family more than Chinese ( $M=15.36, p = .000$ ), Indians ( $M=16.17, p = .001$ ), Korean ( $M=15.98, p = .010$ ), Taiwanese ( $M=14.36, p = .000$ ) and Vietnamese ( $M=16.93, p = .020$ ) participants.

A MANOVA showed significant ethnic differences on psychological distress ( $\Lambda = .879, F(72, 5171) = 1.53, p < .003, \eta^2 = .016$ ). Follow up Post hoc comparisons using Games Howell showed that for the BSI, psychological distress scale is that Southeast Asians were significantly higher than many of the other ethnic groups across eight of the nine subscales: Somatization, Anxiety, Depression, Phobic Anxiety and Paranoid, Obsessive Compulsion, Hostility and Psychoticism.

Appendix N shows mean differences such that on the Somatization subscale, Southeast Asians ( $M = 9.77$ ) were significantly higher than Japanese ( $M = 7.94, p = .034$ ). For the Depression subscale, Southeast Asians ( $M = 10.69$ ) were significantly higher than Other ethnic groups ( $M = 8.27, p = .046$ ), Japanese ( $M = 7.75, p = .001$ ), Koreans ( $M = 8.44, p = .014$ ) and Filipino/Pacific Islanders ( $M = 8.30, p = .010$ ). Southeast Asians ( $M = 9.84$ ) were also significantly higher on the Anxiety subscale than Indians ( $M = 7.92, p = .033$ ). Similarly with the Phobic Anxiety subscale, Southeast Asians ( $M = 7.02$ ) were significantly higher than Indians ( $M = 7.92, p = .021$ ). For the Paranoid subscale Southeast Asians ( $M = 8.92$ ) were significantly higher than Chinese ( $M = 7.31, p = .045$ ), Japanese ( $M = 6.54, p = .001$ ) and Koreans ( $M = 6.94, p = .005$ ).

On the Obsessive-Compulsive subscale, Southeast Asians ( $M = 11.30$ ) were significantly higher than Indian ( $M = 8.92, p = .041$ ), Japanese ( $M = 8.84, p = .035$ ) and Koreans ( $M = 9.14, p = .033$ ). On the Hostility subscale, Southeast Asians ( $M = 8.29$ ) were significantly higher than Indians ( $M = 6.38, p = .002$ ), and Japanese ( $M = 6.22, p = .000$ ). Lastly, on the Psychoticism subscale, Southeast Asians ( $M = 8.49$ ) were significantly higher than Chinese ( $M = 6.83, p = .024$ ), Indian ( $M = 6.17, p = .001$ ), Filipino/Pacific Islanders ( $M = 6.49, p = .003$ ), Japanese ( $M = 6.05, p = .000$ ), Koreans ( $M = 6.57, p = .004$ ), and Other ( $M = 6.31, p = .004$ ).

## Appendix M.

*Means and Standard Deviations of Collectivistic Coping Variables by Ethnicity*

Total N=866	Collectivistic Coping														
	Resp Auth		Forbear		SocAct		IntraCop		RelUniv		Fatalism		Family		
Ethnicity N	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	
Chinese	51	11.75	7.92	17.55	10.27	16.40	8.63	16.75	9.05	21.22	10.88	14.53	7.33	15.36	9.21
Korean	240	11.49	7.06	17.20	9.53	16.44	8.10	18.32	8.22	21.83	9.80	15.66	6.83	15.98	8.60
Filipino/ PI	101	14.68	8.64	17.71	9.59	19.94	8.01	20.08	8.67	26.30	9.86	16.40	7.54	19.00	9.88
SE Asian	75	15.45	8.45	21.34	10.48	20.56	7.85	19.18	7.84	24.28	9.39	19.42	7.62	23.40	9.36
Taiwanese	68	10.47	7.76	15.00	8.97	14.85	9.06	15.89	8.25	18.57	10.37	13.10	7.40	14.36	9.04
Japanese	57	12.68	8.21	15.47	9.69	16.89	8.81	16.75	9.59	21.24	11.16	14.56	8.03	18.59	9.78
Vietnamese	43	12.32	6.75	17.90	9.29	17.97	9.40	16.58	8.40	20.37	11.03	14.30	7.67	16.93	9.80
South Asian	57	12.01	7.47	17.15	10.49	15.43	8.22	16.92	8.87	20.50	9.52	14.85	7.50	16.17	9.10
Other	51	11.56	7.09	17.21	10.16	17.41	9.31	18.15	7.85	23.43	10.35	15.98	8.02	17.41	8.89

Significance at  $p < .05$ 

## Appendix N.

*Means and Standard Deviations of Psychological Distress Variables by Ethnicity*

Total N=866	Psychological Distress																		
	Somat		IntSen		Depress		Anxiety		Probanx		Paranoid		OCD		Hostility		Psychotic		
Ethnicity N	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	
Chinese	240	8.45	2.81	6.57	3.04	9.14	4.38	8.57	3.73	6.05	2.19	7.31	3.11	9.80	4.48	7.15	2.94	6.83	3.00
Korean	174	8.48	2.86	6.18	2.68	8.44	3.25	8.35	3.10	6.04	1.95	6.94	2.65	9.14	4.11	7.03	2.78	6.57	2.47
Filipino/ PI	101	8.42	2.63	6.19	2.90	8.30	3.03	8.83	3.15	5.90	1.85	7.35	3.07	9.53	3.80	7.01	2.60	6.49	2.03
SE Asian	75	9.77	4.50	6.92	3.35	10.69	4.97	9.84	3.86	7.02	2.99	8.92	3.98	11.30	4.97	8.29	3.16	8.49	3.83
Taiwanese	68	9.52	4.43	6.52	3.18	9.45	4.52	9.54	4.17	6.32	2.61	7.57	3.98	10.54	4.98	7.39	3.60	7.36	3.76
Japanese	57	7.94	1.36	5.45	2.33	7.75	2.91	8.07	3.06	5.64	1.49	6.54	2.36	8.84	3.65	6.22	1.85	6.05	1.70
Vietnamese	43	9.02	3.52	5.81	3.22	8.44	3.62	8.37	3.67	6.16	2.23	7.16	2.91	9.27	4.38	6.72	2.23	6.60	3.16
S Asian (Indian)	75	8.17	2.62	6.00	2.77	8.43	3.64	7.92	2.78	5.98	2.17	7.21	3.25	8.92	3.47	6.38	2.02	6.17	2.10
Other	51	8.37	2.67	6.37	3.19	8.27	3.54	8.21	3.07	5.86	1.66	7.17	2.67	9.13	4.09	7.17	2.98	6.31	2.37

Significance at  $p < .05$



## Appendix O

*Fit Indices of Measurement Models*

Fit Index	Measurement Model AARRSI	Measurement Model CCS	Measurement Model BSI
Chi square	51.324	1075	1378
Df (p value)	32 (<.016)	222(<.000)	371(<.000)
CMIN/df	1.6	4.8	3.7
TLI	.98	.78	.85
CFI	.98	.74	.83
RMSEA	.08	.20	.16

## Confirmatory Factor Analysis (CFA)

Subsequent Confirmatory Factor Analyses were conducted for each indicator to determine if the factor loadings hold together as a latent variable. While it is not entirely appropriate to specify a CFA model based on results of Exploratory Factor Analysis (EFA) to estimate the former using the same data, (Kline, 2005) the current study chose instead to validate the factor structure across different samples. Given that an EFA was employed to provide validity for each instrument on the first 433 participants in the sample (see Instrumentation in Chapter 3), a CFA could then be run on the (different) last 433 participants in the sample. More specifically, EFA's revealed an alternate measure model which included a five-factor structure for Collectivistic Coping and a four-factor structure for Psychological Distress. The following section discusses the CFA results of the Alternate Measure Model

The original measurement model had significant factor loadings for AASSI, the level of fit was poor when looking simply at Chi-square:  $\chi^2 (32, N=866) = 51.32, p < .001$ . However, the issue with chi square is that it is hypersensitive to sample size (approximating df's) (Kline, 2005). As such, alternative fit indices were explored and included indicating the CMIN/df = 1.6 which indicates a good fit; the Comparative Fit Index (CFI) = .979, which is above the

conventional recommended cut-off of .95; and Root Mean Square Error of Approximation (RMSEA) = .08 (CI = .03 - .12), indicating that the measurement model for AASSI is a good fit. Thus, no modifications were made for the AASSI.

A confirmatory factor analysis was used to test the stability of the five factor 38-item CCS using MPlus 5.1. Adequacy of model fit was determined by the same fit indices as described in Chapter 3. The chi-square statistic for hypothesizing five-factor model represents a similar fit than the null model  $\chi^2 (5, N=433) = 38.5, p<.000$  and is significant, which does not indicate adequate fit. While the comparative fit index (CFI) = .95 indicates a decent fit, the root mean square error of approximation (RMSEA) = .125. Model modification indices indicate that the model might be improved by inserting WITH statements between Elder/Mentor Support and Family and well as Friends and Racial-Cultural Support. Determinations of whether modifications to the model resulted in significant improvement in fit were obtained through examination of the chi-square difference between the models. Analysis of the re-specified model indicated significant improvement over the initial model  $\chi^2 (3, N=433) = 10.88, p<.012$ . While the chi-square is still significant, indicating a poor fit, the CMIN/df is 3.6 which can be considered adequate. Similarly the CFI=.988 which is a good fit, and a RMSEA = .078.

Lastly, a third confirmatory factor analysis was used to test the stability of the four factor 39-item BSI using MPlus 5.1. Adequacy of model fit was determined by the same fit indices as described in Chapter 3. The chi-square statistic for hypothesizing four-factor model represents a good fit with the data compared to the null model  $\chi^2 (2, N=433) = 373.206, p<.000$  and is significant, which indicates the model is not a good fit. Alternative fit indices affirm the good fit: comparative fit index (CFI) = 1.00. No model modifications were suggested. Table 9 indicates fit indices of each factor structure