Racial Discrimination Stress, Coping, and Depressive Symptoms Among Asian Americans: A Moderation Analysis

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The purpose of our study was to explore: (a) the association between racial discrimination stress and depressive symptoms, and (b) how coping (e.g., individualistic/collectivistic and dispositional/situation-specific coping) attenuated or strengthened this association specifically among Asian Americans. Data were collected from 201 Asian Americans in a large Midwestern state university through an online survey. Results from a hierarchical regression indicated that racial discrimination stress significantly predicted depressive symptoms over and beyond perceived general stress and perceived racial discrimination. For the moderation effect, the simple effect analyses indicated that low utilization of reactive coping strategies and a high helpfulness rating of family support reduced the strength of association between racial discrimination stress and depressive symptoms.

Keywords: racial discrimination stress, coping, moderation, depressive symptoms, and Asian Americans

Instances of racial discrimination, including microaggressions and macroaggressions, can be overt or subtle. The effects of these incidents can be short-term, chronic, and accumulative (Clark, Anderson, Clark, & Williams, 1999). Sue, Bucceri, Lin, Nadal, and Torino (2007) indicated that racial discrimination could create a negative aftermath of stress in Asian Americans’ daily functioning, such as in their school/work, thinking/judgment, or interpersonal relationships. Although there is growing evidence that perceived discrimination can significantly affect mental and physical health (Clark et al., 1999), there is little empirically based guidance with regard to which coping strategies can effectively reduce the magnitude of the association between racial discrimination and negative emotions (Pascoe & Smart Richman, 2009). Thus, this study explores potential coping strategies that would either attenuate or strengthen this association among Asian Americans.

The associations between perceived racial discrimination and psychological distress have been well-documented (e.g., Noh, Beiser, Kaspar, Hou, & Rummens, 1999). In particular, these findings have been found consistently for people with Asian heritages across various regions of the United States and Canada (e.g., Gee, Spencer, Chen, Yip, & Takeuchi, 2007; Liang, Alvarez, Juang, & Liang, 2007; Lee, 2005; Yoo & Lee, 2005, 2008). However, in a recent meta-analysis, Pascoe and Smart Richman (2009) revealed that the average correlations between various forms of perceived discrimination and both mental and physical health were -.20 and -.13, respectively; thus, there remains much variance unaccounted for by these associations.
Moreover, Harrell (2000) argued that it is important to understand the unique contribution of racial discrimination to outcomes over and above confounding general life stressors. After controlling for perceived general stress, some studies found that perceived discrimination uniquely predicted psychological distress (e.g., Gee, Spencer, Chen, Yip et al., 2007), whereas others did not (e.g., Taylor & Turner, 2002). This discrepancy suggests the complexity of racial discrimination experiences. Joseph and Williams (2005) indicated that “exposure to a traumatic event may lead a person to experience posttraumatic stress. But there are wide individual differences in the severity and chronicity of reactions. Some people remain affected for considerable periods of time, but others are able to adjust relatively quickly, and some even go on to report experiencing positive personal changes” (p. 1). Thompson-Miller and Feagin (2007) also reported that while some people may be only slightly bothered by racial discrimination, others can clearly recall the details of these incidents for some time after the discrimination events and can still feel greatly bothered by racial discrimination in their current lives. Such reports are in line with Clark et al.’s (1999) contextual racism model. They proposed that the complexity in the association between perceived discrimination and health can be further understood by adding other factors into the model (e.g., discrimination stress responses/reactions, as well as general and specific coping strategies). Thus, researchers have called for more complex models to understand the complex link between racial discrimination and health.

Racial Discrimination Stress and Depressive Symptoms

Carter (2007) conceptually integrated the literature on racism, discrimination, stress, and trauma to promote a clearer understanding of a new construct, race-based traumatic stress. He proposed that the severity of race-based traumatic stress can affect a number of areas in one’s life and should be determined by the intensity of the person’s reactions that emerge. “Because many aspects of racism can occur throughout one’s life, severity may be a consequence of the cumulative effects of numerous events...one seemingly innocuous or minor event could be the last straw in a series of accumulated racial incidents” (Carter, 2007, p. 90). Carter noted that severity may also be a function of several factors, such as duration, number of events, and the type of social support both before and after the event (see Carlson, 1997). Similarly, Thompson-Miller and Feagin (2007) suggested that when conceptualizing and assessing race-based traumatic stress, researchers should consider the severity (e.g., the degree of disturbance in the person’s life) and the timing (e.g., the degree of interference in daily life at the time of the discrimination event and the current time) of racial discrimination.

As indicated earlier, the literature is limited to the association between perceived discrimination and health. However, intuitively, because racial discrimination stress can be short-term, chronic, and accumulative, it is likely to be associated with depressed mood. Conceptually, Clark et al. (1999) argued that “the perception of racism usually resulted in psychological and physiological stress responses” and “over time these stress responses are posited to influence health outcomes” (see pp. 806 and 812). Thus, this study’s first hypothesis was to expect a positive relation between racial discrimination stress and depressive symptoms. To test this hypothesis, we also followed Harrell’s (2000) recommendation by controlling for potential confounding variables of perceived general stress and perceived racial discrimination.

Coping Strategies as Moderators

The second purpose of this study was to examine the role of coping in the association between racial discrimination stress and depressive symptoms among Asian Americans. After carefully reviewing the literature, it is surprising that Pascoe and Smart Richman’s (2009) meta-analysis across 134 studies on discrimination and health outcomes revealed that only nine studies have examined the role of coping in this link. Thus far, only eight published studies have examined how people with Asian heritages cope with racial discrimination (Alvarez & Juang, 2010; Kuo, 1995; Liang et al., 2007; Noh et al., 1999; Noh & Kaspar, 2003; Wei, Alvarez, Ku, Russell, & Bonett, in press; Wei, Ku, Russell, Mallinckrodt, & Liao, 2008; Yoo & Lee, 2005).
In studying the role of coping in the racial discrimination and outcome link, at least two methodological issues are important: (a) being sensitive to culturally congruent coping, and (b) being sensitive to coping dispositions and situation-specific coping. First, many coping inventories used in the United States are based on Euro-American psychology and values (Heppner, 2008a; Heppner et al., 2006; Wong & Wong, 2006). However, these U.S.-based coping inventories may not tell the whole story about how racial ethnic minority groups in the United States effectively cope with stressful life events (Heppner, 2008a; Noh et al., 1999; Noh & Kaspar, 2003). Subsequently, scholars have called for the inclusion of culturally congruent coping measures in the general coping literature (e.g., Heppner, Witty, & Dixon, 2004), in the Asian or Asian American literature (e.g., Heppner, 2008a, 2008b; Heppner et al., 2006; Yeh, Arora, & Wu, 2006), and in the coping with discrimination literature (e.g., Clark et al., 1999; Harrell, 2000).

Noh and colleagues (1999, 2003) examined both Western, individualistic ways of coping (e.g., active coping) and Eastern, collectivistic ways of coping (e.g., forbearance coping) in their studies on coping with racial discrimination. Noh et al. (1999) found that, forbearance coping, a culturally congruent coping strategy, buffered Southeast Asian refugees from depression in the face of racial discrimination. Later, Noh and Kaspar (2003) found that active coping buffered the impact of perceived racial discrimination on depression for Korean Canadian immigrants. Noh and Kaspar explained that perhaps these immigrants have high education, stable jobs, and social resources which helped them adopt a Western coping strategy to lessen the negative impact of perceived discrimination on depression. These two studies show that individualistic and collectivistic coping strategies are useful in understanding the moderation role of coping strategies on the association between perceived discrimination and depression. Thus, we continue this line of research by focusing on both individualistic and collectivistic coping.

The second methodological issue pertains to dispositional and situation-specific coping. Dispositional coping describes individuals’ “habitual ways of dealing with stress...these coping styles can influence their reactions in new situations” (Carver & Scheier, 1994, p.185). Situation-specific coping describes coping responses that vary across different types of problems (Lazarus & Folkman, 1984). In the discrimination literature, Clark et al. (1999) encouraged researchers to broaden the knowledge base about racism by examining “whether general and racism-specific coping responses are...effective in mitigating the effects of perceived racism” (p. 813). This indicates that both dispositional and situation-specific coping strategies may be critical for managing racial discrimination. Thus, we examined whether dispositional and situation-specific coping are moderators in the link between racial discrimination stress and depressive symptoms.

To assess Western-based, individualistic, and dispositional styles of coping, we selected the Problem-Focused Style of Coping (PF-SOC; Heppner, Cook, Wright, & Johnson, 1995). It includes reflective (e.g., design a systematic plan to solve problems), suppressive (e.g., avoid coping activities), and reactive (e.g., have strong emotional responses) coping. Regarding reflective coping, Pascoe and Smart Richman’s meta analysis (2009) indicated that “active or problem-focused coping seemed to be the most effective type of coping, with all significant effects showing a buffering effect” (p. 546). Yoo and Lee (2005) found that for Asian Americans with a strong ethnic identity, problem solving coping buffered the effects of racial discrimination on negative affect when perceived racial discrimination was low. Moreover, Asian Americans may use suppressive coping to avoid interpersonal conflict. However, suppressive coping correlated positively with depression (e.g., Heppner et al., 1995). Thus, suppressive coping may enhance the association between racial discrimination stress and depressive symptoms. Among Asian international students, Wei et al. (2008) found that suppressive coping increased vulnerability to depression in the face of discrimination. Finally, because reactive coping is incongruent with the Asian value of emotional self-control (Kim, Li, & Ng, 2005), using this strategy to deal with racial discrimination stress may increase Asian Americans’ distress. Wei et al. (2008) found that, in the face of discrimination, reactive coping made Asian international students vulnerable to depression. So, we hypothesized that reflective coping would lessen the association between racial discrimination stress
and depressive symptoms. However, suppressive and reactive coping would strengthen this association.

To assess Eastern, collectivistic, and situation-specific coping, we selected the Collectivistic Coping Styles (CCS: Heppner et al., 2006) because it is based on Asian cultural values (Kim et al., 2005) and it allows us to easily assess coping activities related specifically to racial discrimination. It consists of five coping strategies: (a) acceptance, reframing, and striving; (b) family support; (c) avoidance and detachment; (d) religion/spirituality; and (e) private emotional outlets. Asian individuals often reframe their existing realities (Weisz, Rothbaum, & Blackburn, 1984). In addition, minorities tend to learn how to cope with racial discrimination by interacting with and being socialized by their family members (Hughes et al., 2006). Kuo’s (1995) study of coping with discrimination reported that 60% of Asian Americans thought that things could be worse (e.g., reframing), 43% asked advice from relatives (e.g., family support), and 54% just tried to ignore discrimination (e.g., avoidance). Thus, faced with racial discrimination stress, Asian Americans may reframe the discrimination or seek guidance from family members in order to weaken the association between racial discrimination stress and depressive symptoms. Thus, we expected these two strategies to lessen the direct association.

Conversely, saving face is an Asian cultural practice (Sue & Sue, 2008). In dealing with discrimination, the avoidance and detachment strategy (e.g., “saved face by not telling anyone”) may help Asian Americans temporarily maintain face. However, the stress related to discrimination still remains after using avoidant coping strategies, and consequently, the person may be vulnerable to depression. Thus, we expected this strategy to enhance the association between racial discrimination stress and depressive symptoms. Religion/spirituality and private emotional outlets were used less frequently and found less helpful in Heppner et al.’s study. Also, there is an absence of empirical support for these two coping strategies in coping with racial discrimination stress for Asian Americans. Hence, no specific hypotheses were made regarding these two strategies, and they were only examined for exploratory purposes.

In conclusion, the first hypothesis was that racial discrimination stress would be positively related to depressive symptoms after controlling for perceived general stress and perceived discrimination. In addition, two moderation hypotheses posited that (a) reflective coping, (b) acceptance, reframing and striving, and (c) family support would lessen the relation between racial discrimination stress and depressive symptoms, while (a) suppressive coping, (b) reactive coping, and (c) avoidance and detachment would strengthen this association.

Method

A Prior Power Analysis

We conducted a prior power analysis by using the Power and Precision program (Borenstein, Rothstein, & Cohen, 2001) to estimate the power. Based on Cohen’s (1992) suggestion (i.e., $r = .10, .30, \text{ or } .50$ for small, medium, or large effect size, respectively), the results indicated a sample size of 1480 for a small effect size ($R^2 = .01$), 140 for a medium effect size ($R^2 = .09$), and 35 for a large effect size ($R^2 = .25$) with an alpha of .05 and a power of .80. Due to the lack of available resources, it was a challenge to collect enough data for a small effect size; however, we planned to collect enough data for a medium effect size (i.e., $N > 140$).

Participants and Procedure

A total of 201 Asian Americans from a public Midwestern university were obtained for our study. In this predominantly White university, about 2.8% of the entire student population was Asian American. In this study, specific Asian ethnic subgroups were as follows: 23.9% 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% Miao, 1% Cambodian, 1% Thai, and 0.5% Indonesian. They included 46% men and 54% women, with a mean age of 20.16 years ($SD = 2.79$; range = 18 – 42). Participants varied in their academic year, including 36% freshmen, 26% sophomores, 18% juniors, 15% seniors, 3% graduate students, and 2 participants who did not respond to this question. In terms of generation status, 6.5% identified themselves as first genera-
tion, 37.3% as 1.5 generation (refers to Asian Americans who were born outside of the United States but moved to the United States as a child or adolescent), 48.3% as second generation, 2.5% as third generation, 4% as fourth generation, and 1.5% as fifth generation.

A list of Asian American students was obtained from the Registrar’s database. We contacted potential participants via email to invite them to participate in an online study. An online methodology was selected because racial discrimination is a sensitive topic, and participants may feel more comfortable answering the questions online than in person. Those who took psychology courses received course credits, and those who did not take psychology courses were awarded a gift certificate for an ice cream cone or a $5 check. The participants were informed that the purpose of the study was to identify coping strategies that are used effectively by Asian Americans to reduce psychological distress from stressors. The survey took approximately 20 to 35 minutes to complete. In order to keep the surveys anonymous, the students’ information for receiving course credits, gift certificates, or $5 checks was stored separately from the survey answers. Only the first author could access the students’ information. None of the authors were instructors of any of the psychology courses. Finally, 232 students were recruited. There were 31 students who answered a validity-checking item (i.e., an item which asked participants to check No. 5 as the answer for the item) incorrectly; therefore, these students were removed from the current study. Thus, data from 201 students was used in the data analyses.

Measures

Perceived general stress. The Perceived Stress Scale (PSS; Cohen, Kamarck, & Merrellstein, 1983) was used to measure general perception of stress in the past month. The PSS has 10 items which are rated on a 5-point scale, ranging from (0) never to (4) very often. Total score ranges from 0 to 40, with higher scores indicating a greater level of perceived general stress. The coefficient alpha was .76 for African Americans (Pieterse & Carter, 2007), and .86 in our study. An estimate of construct validity was supported by a positive association with psychological distress among African Americans (Pieterse & Carter, 2007).

Perceived discrimination. Perceived discrimination was assessed by the Perceived Discrimination (PD) subscale of the Acculturative Stress Scale for International Students (ASSIS; Sandhu & Asrabadi, 1994). PD has 8 items which are rated on a 5-point scale, ranging from (1) strongly disagree to (5) strongly agree. Total scores range from 8 to 40, with higher scores indicating greater perceived discrimination. The coefficient alpha for PD was .92 among Asian international students (Wei et al., 2008) and .93 in our study. An estimate of construct validity was supported by a positive association with depression among Asian international students (Wei et al., 2008).

Problem focused coping strategies. The Problem-Focused Style of Coping (PF-SOC; Heppner et al., 1995) was used to measure dispositional coping. The PF-SOC (18 items) assesses the consequences of problem-focused coping activities that would either facilitate or inhibit progress toward the resolution of stressful life events in general. Respondents use a 5-point scale ranging from (1) almost never to (5) almost all of the time to depict their utilizations of the coping strategies listed in the scale. The PF-SOC is composed of three styles of coping: (a) Reflective (7 items), (b) Suppressive (6 items), and Reactive (5 items). Higher Reflective scores indicate 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. Coefficient alphas were .77, .76, and .73 for Reflective, Suppressive, and Reactive coping styles among college students (Heppner et al., 1995) and .81, .82, and .75, respectively, in this study. An estimate of construct validity was supported through a negative correlation between reflective style of coping and depression and positive associations between suppressive and reactive style of coping and depression for Asian international students (Wei et al., 2008).

Collectivistic coping strategies. The Collectivistic Coping Styles-Racial Discrimination (CCS-RD) was based on the Collectivistic Coping Styles inventory (CCS; Heppner et al., 2006), which is a situation-specific collectivistic coping inventory initially developed on Tai-
Racial Discrimination Stress. Another part of the CCS was adapted to assess the degree of Racial Discrimination Stress (RDS). The effects of perceived discrimination have been widely reported to impact many areas of people’s lives (see Clark et al., 1999) and take an emotional toll through heightened stress responses (see Pascoe & Smart Richman, 2009). Consistent with this literature, we operationalized RDS as both the degree of interference from racial discrimination in daily life (e.g., interpersonal relationships) as well as unresolved feelings related to racial discrimination. More specifically, the RDS assessed the level of interference (i.e., Interference of Racial Discrimination [IRD]) of racial discrimination in five major life domains (i.e., school or work, interpersonal relationships, thinking and judgment, mood, and self-esteem). Moreover, since stress relating to racial discrimination can be acute and long-lasting (see Clark et al., 1999; Noh et al., 1999), we assessed racial interference both at the time of the discrimination event(s) (IRD-Then) and presently (IRD-Now). Participants rated each of the 5 IRD items on a 5-point scale, ranging from (1) no interference at all to (5) a major interference. In addition, we assessed the degree of unresolved feelings related to racial discrimination in general (i.e., Resolution of Discrimination [RD]; I am disturbed by my memories related to discrimination). Participants rated 4 items on a 6-point scale; 1 (strongly agree) to 6 (strongly disagree). The RDS was computed by summing the standardized scores of IRD (Then and Now) and RD, with higher scores indicative of more racial discrimination stress. In our study, the alpha coefficients were .83, .87, and .80 for IRD Then, IRDI Now, and RD, respectively. One estimate of construct validity for these variables was evidenced by positive associations with psychological distress among Taiwanese college students (Heppner et al., 2006).

Depression. The short version of the Center for Epidemiological Studies—Depression Mood Scale (CES-D-short version; Kohout, Berkman, Evans, & Cornoni-Huntley, 1993) was used to measure depressive symptoms during the past week. The CES-D-short version has 11 items which are rated on a 4-point scale that ranges from (0) rarely or none of the time to (3) most or all of the time. Scores range...
between 0 and 33, with higher scores indicating a higher level of depressive symptoms. In the present study, the coefficient alpha was .85. Wei et al. (in press) reported a coefficient alpha of .84 for the CES-D short version (11 items) and demonstrated an estimate of construct validity through negative associations with life satisfaction and self-esteem among Asian Americans, African Americans, and Latino Americans.

**Results**

**Preliminary Analyses and Descriptive Statistics**

The regression assumptions of linearity, homoscedasticity, and normality (see Cohen, Cohen, West, & Aiken, 2003) were first examined. The results indicated that there was no violation of the assumption of linearity or residual homoscedasticity. The skewness and kurtosis in the residual scores were 0.31 and 0.23 (Zs = 1.78 and 0.66, ps > .05), respectively. The results showed that there was no statistically significant departure from normality, which met the residual normality assumption in the regression analysis.

Next, we examined whether all the main variables (i.e., perceived general stress, perceived discrimination, racial discrimination stress, three PF-SOC coping factors, five CCS-RD factors, and depressive symptoms) varied by different Asian American subgroups. No significant results from the MANOVA analysis were found (Pillai’s Trace = .74, F value = 1.11, and p = .19). So, all Asian American subgroups were combined in the later analyses.

Moreover, two other MANOVAs were conducted to examine whether the above measured variables would vary as a function of participants’ sex and generation status. No significant results were found (Pillai’s Trace = .10 to .32, F values = 1.69 to 1.15, and ps = .07 to .10). In addition, age was not significantly related to any of the variables (all ps > .01), with three exceptions. The results showed that age was positively related to perceived discrimination (r = .20, p < .01), racial discrimination stress (r = .30, p < .001), and coping through private emotional outlets (r = .19, p < .01). These results suggest that older college students reported stronger perceived discrimination, stronger racial discrimination stress, and found higher coping helpfulness through private emotional outlets. However, because the demographic variables were not significantly related to the dependent variable (i.e., depressive symptoms), none of these variables (i.e., sex, generation status, and age) were used as covariates in the following analyses.

Means, standard deviations, and zero-order correlations among the variables are presented in Table 1. Results showed that depressive symptoms were positively related to perceived stress, perceived discrimination, racial discrimination stress, suppressive coping, reactive coping, and private emotional outlets. Conversely, depressive symptoms were negatively related to family support and acceptance, reframing, and striving.

**Moderation Analyses**

Our model included interaction terms, and we standardized the predictor and moderator variables to reduce multicollinearity (e.g., Aiken & West, 1991; Frazier, Tix, & Barron, 2004). In the hierarchical regression, in Step 1, perceived general stress and perceived discrimination were entered as covariate variables. In Step 2, racial discrimination stress was entered as a predictor to test a main effect of racial discrimination stress on depressive symptoms over and beyond perceived general stress and perceived discrimination. In Step 3, the three individualistic and dispositional coping styles and the five collectivistic and situation-specific coping strategies were entered as a block. Finally, in Step 4, all the interaction terms were entered to examine the interaction/moderation effects. A significant standardized regression coefficient and change in $R^2$ for the interaction term indicated a significant moderation effect (Aiken & West, 1991).

In Step 1, results indicated that perceived general stress and perceived discrimination accounted for 53% of the variance in depressive symptoms (see Table 2). Perceived general stress was found to significantly predict depressive symptoms, but perceived discrimination failed to predict depressive symptoms. In Step 2, racial discrimination stress accounted for an additional 4% of the variance in depressive symptoms. That is, racial discrimination stress uniquely predicted depressive symptoms over and above perceived general stress and...
Table 1  
Means, Standard Deviations, and Zero-Order Correlations of Variables

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Note. N = 199–201. All means are based on item-level means except racial discrimination stress, which is based on Z score. PSS = Perceived Stress Scale; PD = Perceived Discrimination; RDS = Racial Discrimination Stress (i.e., a composite score of standardized IRD-Then, IRD-Now, and IRD); IRD-Then and IRD-Now = Interference of Racial Discrimination-Then and Interference of Racial Discrimination-Now; RD = Resolution of Discrimination; RFS, SS, and RS = the Reflective, Suppressive, and Reactive Coping Style subscales of Problem Focused Style of Coping; ARS, FS, AD, RS, and PEO = the Acceptance, Reframing, and Striving, Family Support, Avoidance and Detachment, Religion/Spirituality, and Private Emotional Outlet subscales of Collective Coping Style Inventory; CESD-short = Center for Epidemiologic Studies-Depression Mood Scale-short version. A high score means a high level of perceived general stress, the interference from racial discrimination stress, racial discrimination interference (then and now), racial discrimination un-resolution, reflective coping, suppressive coping, reactive coping, perceived utility of acceptance, reframing, and striving, family support, religion/spirituality, avoidance and detachment, private emotional outlet, and depressive symptoms.

* p < .05. ** p < .01. *** p < .001.
perceived discrimination. In Step 3, the three individualistic/dispositional coping styles and the five collectivistic/racial discrimination specific-coping strategies accounted for an incremental 4% of the variance in depressive symptoms after controlling for perceived general stress, perceived discrimination, and racial discrimination stress. Among these coping strategies, family support significantly predicted depressive symptoms, whereas low utilization of reactive coping strategies— which tend to hinder resolution—($B = 0.74, \beta = 0.30, \Delta r^2 = 0.02, p < .01$), but was not statistically significant at low utilization of reactive coping strategies ($B = 0.10, \beta = 0.04, \Delta r^2 = 0.00, p > .05$). These results indicated that high utilization of reactive coping strategies added to the vulnerability to depressive symptoms, whereas low utilization of reactive coping strategies was associated with a low level of depressive symptoms, even when racial discrimination stress was strong.

Moreover, the simple effect results (see Figure 2) revealed that the relation between racial discrimination stress and depressive symptoms was positive and significant at low helpfulness ratings of family support ($B = 0.81, \Delta r^2 = 0.03, p < .01$).
However, the association between racial discrimination stress and depressive symptoms was not statistically significant at high helpfulness ratings of family support ($B = 0.03, \beta = 0.01, sr^2 = .00, p > .05$). In other words, when racial discrimination stress increased, Asian American students who reported low helpfulness levels of family support to resolve racial discrimination were more vulnerable to depressive symptoms. Conversely, those who reported high helpfulness levels of family support to resolve racial discrimination were less vulnerable to depressive symptoms.

**Discussion**

The first purpose of our study was to examine whether racial discrimination stress was significantly related to depressive symptoms after controlling for perceived general stress and perceived discrimination. The results supported this hypothesis. The finding of this significant positive direct association not only supports but also extends the existing literature (e.g., Liang et al., 2007; Noh et al., 1999; Noh & Kaspar, 2003; Yoo & Lee, 2005). In line with the recommendation by Harrell (2000) to remove potentially confounding variables, our study adds to the growing literature by demonstrating that racial discrimination stress added an additional 4% of variance in predicting depressive symptoms over and beyond perceived general stress and perceived discrimination. As Sue (2009) persuasively argued, ethnic minority studies need to consider the importance of the cumulative effect of single small effects over time; this additional 4% is both informative and meaning-

\[ \beta = .33, sr^2 = .03, p < .001 \]
ful. This implies that racial discrimination stress is an important construct by itself and is not a proxy for general life stressors or perceived discrimination of Asian Americans and merits additional attention in future discrimination research. These findings also support Carter’s (2007) call to examine race-based traumatic stress, which will help us to understand the complexities surrounding the very important and persistent societal problem of racial discrimination.

The second purpose of this study was to examine the moderation effects of coping strategies on depressive symptoms. The first significant moderator was the individualistic/dispositional strategy of reactive coping. This result suggested that the frequent use of reactive coping (which tends to hinder the resolution of stressful situations) heightened the strength of the association between racial discrimination stress and depressive symptoms. Conversely, less frequent use of reactive coping weakened this association. Emotional self-control is an important component of Asian values (Kim et al., 2005) and typically implies maturity in Asian cultures. A tendency to have strong, unregulated emotional reactions and/or to react impulsively is thus incongruent with the Asian value of emotional control. These results are similar to Wei et al.’s (2008) findings that, in the face of perceived discrimination, Asian international students with high use of reactive coping are more likely to have increased depressive symptoms regardless of their self-esteem levels. Thus, stressful problems like racial discrimination that evoke reactive coping (i.e., strong emotional responses) may be particularly challenging for Asian Americans and Asian international students because such a reactive coping style is incongruent with basic Asian values, customs, and norms.

The second significant moderator was the collectivistic and discrimination-specific family support. This result indicated that high level of helpfulness from family support can be beneficial in lessening the association between racial discrimination stress and depression. The helpfulness of family support in dealing with stressful problems such as racial discrimination reflects a culturally congruent coping strategy. Specifically, the family in Asian cultures plays a central cultural role (Kim et al., 2005) and is deemed as a vital supportive system (Inman & Yeh, 2007; Yeh et al., 2006). People are likely to informally learn how to cope with racial discrimination through the process of racial socialization within their families (Hughes et al., 2006) and through observing what their family has done in the past to deal with racial discrimination (Harrell, 2000). Thus, Asian Americans may cope with racial discrimination stress by following family norms of handling racial discrimination and trusting in the elders’ wisdom and accepting guidance from parents or elders. Thus, receiving guidance and support within a sanctioned collectivistic family environment may help lessen the strength between racial discrimination stress and depressive symptoms.

Even though the above coping strategies serve as significant moderators, it may be important to speculate why other coping strategies failed to serve as significant moderators. The PF-SOC reflective and suppressive factors were not significant moderators, nor were the CCS-RD factors of acceptance, reframing, and striving, as well as avoidance and detachment. Perhaps, because racial discrimination stress is often long lasting and accumulative, this type of problem may not be easily mitigated with a general coping style that is reflective or suppressive. Perhaps, even if people accept racial discrimination, they may still feel upset because it occurs on a daily basis and is not just a one-time occurrence. Or perhaps it reflects the complexity of coping with racial discrimination stress. A two-way interaction may be inadequate to understand its complexity. As we discussed earlier, Yoo and Lee (2005) found that high use of problem solving coping reduced the effects of perceived racial discrimination on negative affect only for Asian Americans with a strong ethnic identity in a low racial discrimination condition (i.e., a three-way interaction of problem solving coping × ethnic identity × perceived discrimination). A third variable (e.g., acculturation/enculturation levels) may serve as a moderator to interact with these coping strategies in predicting depression (see a detailed discussion below). Finally, this study may not have sufficient power to detect these moderation effects.

The results from this study have implications for the coping literature in general and for coping with discrimination among Asian Americans specifically. Our results suggest that it is important to recognize the role of culturally
congruent coping in dealing with racial discrimination. Increasingly, scholars have maintained that coping inventories based on European psychology may not tell the whole story about how racial ethnic minority groups in the United States effectively cope with stressful life events (e.g., Harrell, 2000; Heppner et al., 2006; Heppner, 2008a; Wong & Wong, 2006; Yeh et al., 2006). Despite cogent data indicating that the cultural context influences the perceptions of problems, the perceived effectiveness of coping strategies, and even the acceptable solutions to specific stressors (see Heppner, 2008a), scholars have ignored the cultural context in coping for far too long (Heppner, 2008a, 2008b). Our results clearly indicate a need to include culturally congruent coping activities for Asian Americans.

Limitations, Future Research Directions, and Counseling Implications

It is important to note some limitations in our study. First, although one of the strengths of this study was that the sample was collected from a region (i.e., Midwest) where studies of Asian Americans are underinvestigated, the generalization of the current results to other regions needs to be done with caution. Second, 85% of the participants were 1.5 or 2nd generation Asian American college students. The results may not be generalizable to other racial groups or recent Asian immigrants. Third, the associations between racial discrimination stress, coping strategies, and depressive symptoms may be different for different ethnic subgroups within Asian Americans. In one recent article, researchers found that Asian ethnic subgroups differ in the association between perceived discrimination and some chronic health conditions (Gee, Spencer, Chen, & Takeuchi, 2007). Future investigators can conduct a follow-up study with a specific ethnic group. Fourth, given the voluntary nature of research participation, this kind of design is a potential limitation because these findings cannot be generalized to participants who decided not to participate. Also, given the cross-sectional design with all self-report data, common method variance may be an issue.

Kim (2007) encouraged researchers to examine levels of enculturation (i.e., retaining the traditional ethnic cultural norms) and acculturation (i.e., adapting to the mainstream U.S. cultural norms) in future studies. Many Asians believe that “adversity makes one a better person” or “to lose is to win.” When encountering adverse situations (e.g., racial discrimination), Asians may try to accept the adversity and make efforts to overcome it by believing they can be stronger people through this challenge. Following this reasoning, for those with high enculturation, discrimination-specific coping strategies (e.g., acceptance, reframing, and striving) might buffer the link between racial discrimination stress and depressive symptoms. Future studies might examine a three-way interaction of racial discrimination stress × enculturation × acceptance, reframing, and striving coping strategy (or other collectivistic coping strategies) to expand this line of research. Finally, our results indicated that older students reported stronger perceived discrimination and racial discrimination stress; similarly, a recent study (Yip, Gee, & Takeuchi, 2008) reported differential effects by age for Asian Americans. Future studies might consider age in their studies with Asian Americans. In short, with the growing empirically based knowledge about Asian Americans’ coping with racial discrimination stress, we suggest future researchers examine more complex coping models (e.g., a model with a three-way interaction) and critical individual difference variables such as acculturation/enculturation levels and age.

There are several counseling implications from the current results. First, it is important for practitioners to understand that racial discrimination stress is an independent stressor over and above perceived general stress and perceived discrimination. Clinicians need to increase their awareness of Asian Americans’ race-related experiences and assess levels of racial discrimination stress. Second, practitioners need to take into consideration the cultural context of Asian Americans when these clients present with issues related to racial discrimination stress, specifically coping strategies that might increase (e.g., reactive coping) or lessen (e.g., family support) depressive symptoms. More specifically, our results suggest that practitioners need to understand how reactive coping strategies might contribute to Asian American students’ coping with racial discrimination stress. Since emotional self-control is a sign of maturity in Asian culture (Kim et al., 2005), those who tend
to use reactive coping strategies might experience inner emotional turmoil after reacting strongly to racial discrimination and might blame themselves for losing control. In essence, although their emotional reactions are clearly understandable and normal, they may feel such reactions are culturally inappropriate and thus feel depressed about having these feelings. In addition, coping strategies related to family support are not only culturally congruent, but also can be a helpful resource for Asian American college students. The helpfulness of family support in coping with race-related stress can lessen the impact of racial discrimination stress on depressive symptoms. Practitioners can pay attention to the role of family support in helping them cope with racial discrimination stress.

References


Asian American Journal of Psychology

Special Issue on the Secondary Analysis of the National Latino Asian American Study (NLAAS) Dataset

Call for Papers

For many decades, there was a dearth of community-based epidemiological studies of mental health problems among Asian Americans despite the NIMH Epidemiological Catchment Area (ECA) program of study from 1980-1985. The field was restricted to clinical case studies and treated prevalence studies (i.e., clinic and hospital visit data) to gauge the nature and extent of mental health problems within Asian American communities. The NIMH funding of the National Latino Asian American Study (NLAAS) was a pioneering step in correcting that situation. The National Latino and Asian American Study (NLAAS) is “a nationally representative community household survey that estimates the prevalence of mental disorders and rates of mental health service utilization by Latinos and Asian Americans in the United States” (http://www.icpsr.umich.edu/CPES/background.html). It also contains variables that allow for the comparison of “social position, environmental context, and psychosocial factors with the prevalence of psychiatric disorders and utilization rates of mental health services.”

The purpose of this special issue is to highlight and showcase the empirical research that has been generated by the release of the NLAAS for secondary analysis and to promote more research using that dataset. This special issue will include empirical articles that are based on analysis of the Asian American data within the NLAAS dataset. Studies using comparative data from other datasets within the Collaborative Psychiatric Epidemiology Surveys (CPES) with those from the NLAAS dataset will also be permitted.

Submission Requirements

Authors interested in submitting articles on this topic for the special issue should first email the Editor, Frederick T.L. Leong, at fleong@msu.edu with an indication of interest by August 1, 2010.

Final manuscripts should be submitted electronically via the Manuscript Submission Portal under the Instructions to Authors, located at www.apa.org/pubs/journals/aap by December 1, 2010. Manuscripts will undergo the usual peer review process. A cover letter indicating that the submitted ms is for the NLAAS special issue should also be included with the submission. Questions regarding this special issue may be emailed to the Editor at fleong@msu.edu.