Male Asian International Students’ Perceived Racial Discrimination, Masculine Identity, and Subjective Masculinity Stress: A Moderated Mediation Model

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This study examined male Asian international college students’ perceptions of racial discrimination, subjective masculinity stress, centrality of masculine identity, and psychological distress by testing a moderated mediation model. Participants were 160 male Asian international college students from 2 large public universities. Participants’ perceived racial discrimination was positively related to their subjective masculinity stress only at high (but not low) levels of masculine identity centrality. Additionally, subjective masculinity stress was positively related to psychological distress, although this association was stronger among those who reported high levels of masculine identity centrality. The authors also detected a moderated mediation effect in which subjective masculinity stress mediated the relationship between perceived racial discrimination and psychological distress only at high (but not low) levels of masculine identity centrality. These findings contribute to the counseling psychology literature by highlighting the connections between race- and gender-related stressors as well as the relevance of masculine identity to an understanding of men’s mental health.

Keywords: discrimination, subjective masculinity stress, masculine identity, international, Asian

According to the Institute of International Education (2012), Asians constitute more than 50% of the United States’ international college student population. Although there is a burgeoning body of research on the correlates of Asian international college students’ psychological well-being (e.g., Li, Wang, & Xiao, 2014; Wong, Wang, & Maffini, 2014), arguably one of the most common and salient stressors that Asian international college students experience is discrimination (Bonazzo & Wong, 2007; Wang, Wong, & Fu, 2013). Asian international students report experiences of discrimination at higher rates than their European counterparts (Lee & Rice, 2007; Poyrazli & Lopez, 2007; Sodowsky & Plake, 1992), and their perceptions of discrimination have been shown to be positively related to indicators of psychological distress (e.g., Wang et al., 2013; Wei, Wang, Heppner, & Du, 2012). For Asian international students, salient experiences of discrimination include discrimination based on their English language abilities (Wei, Wang, & Ku, 2012), institutional policies that are biased against international students (Lee & Rice, 2007), and stereotypes based on their nationality and race (Bonazzo & Wong, 2007; Ruble & Zhang, 2013).

In this study, we advanced the literature on Asian international students’ experience of discrimination by examining how male Asian international students’ masculine identities interact with experiences of racial discrimination and gendered stressors to predict mental health outcomes. Specifically, we tested a moderated mediation model in which masculine identity moderates (a) the relationship between perceived racial discrimination and subjective masculinity stress, (b) the link between subjective masculinity stress and psychological distress (defined as symptoms reflecting general feelings of distress, somatic distress, and performance difficulty), and (c) the mediation effect from perceived racial discrimination to subjective masculinity stress to psychological distress.

Despite growing research interest in Asian international students’ experiences of discrimination, how gender processes relate to discrimination has received considerably less empirical attention. Studies that have focused on gender mainly involve comparisons between Asian female and male students. For example, one
study revealed that male Asian international students experienced higher frequency of racial discrimination than their female counterparts (Ye, 2006). Nevertheless, research that directly investigates the relationship between Asian international students’ perceived racial discrimination and gender-related experiences is lacking. This gap in the empirical literature stands in contrast to the growing body of research documenting the link between race- and gender-related constructs relevant to people of color (e.g., Wester, Vogel, Wei, & McLain, 2006; Wong, Horn, & Chen, 2013) as well as scholarship theorizing the relevance of gender processes (e.g., gendered racism) to the well-being of Asian and Asian American men (e.g., Iwamoto & Liu, 2009; Liang, Rivera, Nathwani, Dang, & Douroux, 2010; Liu & Chang, 2006; Sheu, 2010). To address this gap, we sought in this study to examine the relationship between perceived racial discrimination and masculinity-related stress among male Asian international students.

There are several conceptual and empirical reasons suggesting that experiences of racial discrimination might be linked to masculinity-related stress among male Asian international students. First, the experience of living in the United States might be stressful for male Asian international students because aspects of dominant U.S. masculine norms (e.g., being assertive and independent-minded) might conflict with masculine norms in Asian countries that emphasize humility and conformity (Liang et al., 2010; Wong, Nguyen et al., 2012). Hence, male Asian international students’ encounters with racial discrimination in the United States might be in the form of social disapproval by their American peers for their lack of adherence to U.S. masculine norms.

Second, racial discrimination might create obstacles for male Asian international students to fulfill traditional masculine role expectations, particularly within an academic context (Liu & Chang, 2006; Lu & Wong, 2013; O’Neil, 2008). In many Asian cultures, notions of masculinities are closely tied to scholastic abilities and career advancement (Sheu, 2010). Therefore, male Asian international students who are racially discriminated against in academic contexts (e.g., being given fewer research opportunities by their professors or being negatively evaluated during class discussions) might also face impediments to scholastic achievement and thus experience greater masculinity-related stress.

Third, for Asian and Asian American men, the experiences of racism may be inherently gendered (Liang et al., 2011; Wong, Owen, Tran, Collins, & Higgins, 2012). For example, the hypersexual Asian female stereotype (Shimizu, 2007) stands in sharp contrast to U.S. racial stereotypes insinuating that Asian men are sexually inadequate and lacking in masculinity (Wong, Horn, et al., 2013). Male Asian international students who may have been perceived as highly masculine and desirable romantic partners in their home countries might feel emasculated upon encountering these negative racial stereotypes in the United States (Liang et al., 2010).

Fourth, although no study has examined the association between perceived racial discrimination and masculinity-related stress among male Asian international students, a recent study provided preliminary evidence for the casual influence of racial discrimination on racial minority men’s experience of masculinity threat. Grounded in the notion that racial discrimination constitutes a threat to the masculine self-concept of racial minority men, Goff, Leone, Lewis, and Kahn (2012) demonstrated that Black men who were randomly assigned to experience racial discrimination became more vigilant to masculinity threat relative to those not exposed to discrimination; in contrast, among White men, those who were randomly assigned to experience racial discrimination did not differ from those not exposed to racial discrimination in their vigilance to masculinity threat cues. In another study, a combination of high levels of perceived racism and Latino masculinity ideologies was positively related to various indicators of gender role conflict among Latino men (Liang, Salcedo, & Miller, 2011).

In investigating the relationship between perceived racial discrimination and masculinity-related stress, we focus specifically on the construct of subjective masculinity stress (Wong, Shea et al., 2013). Guided by social constructionist perspectives on masculinities, Wong, Shea and colleagues (2013) proposed the construct of subjective masculinity stress to refer to men’s evaluations of stress associated with their phenomenological experiences of being male. Subjective masculinity stress can be distinguished from other stress-related masculinity constructs, such as gender role conflict (O’Neil, 2008) and masculine gender role stress (Eisler & Skidmore, 1987) that include predefined dimensions of masculinities (e.g., restrictive emotionality, performance failure, and physical inadequacy). Instead of specifying dimensions of masculinities that are stressful for men, subjective masculinity stress is premised on the notion that men are actively engaged in relating their life experiences to their gender and that their evaluations of stress associated with such experiences can be highly idiosyncratic. To assess men’s subjective masculinity stress, Wong, Shea et al. (2013) developed a scale in which male respondents provide open-ended written statements about their personal experiences of what it means to be a man and then rate these experiences on the basis of how frequently they are stressful (see the Method section for a description). Wong, Shea et al. (2013) argued that that this idiographic approach has the potential to capture stressful experiences of masculinities that are more personally salient to men from diverse and subordinate backgrounds (e.g., male Asian international students) relative to masculinity constructs and measures that focus on meanings of masculinities dominant in Western culture (e.g., Eisler & Skidmore, 1987). Previous research has demonstrated that men’s subjective masculinity stress was positively related to psychological distress (Wong, Shea, et al., 2013) and that Asian international students’ perceived racial discrimination was positively associated with indicators of psychological distress (Wang et al., 2013). Given these findings as well as our foregoing review of the literature supporting the link between perceived racial discrimination and masculinity-related stress, it seems reasonable to theorize that Asian international students’ perceived racial discrimination might be indirectly related to psychological distress through its association with subjective masculinity stress.

Centrality of Masculine Identity

In addition to proposing connections among perceived racial discrimination, subjective masculinity stress, and psychological distress, we posit that male Asian international students’ collective
identities as men might provide the basis for moderation effects on these relationships.

Collective identity\(^1\) refers to the cognitive and affective processes through which individuals draw connections between the self and social groups (Ashmore, Deaux, & McLaughlin-Volpe, 2004; Tobin et al., 2010). Collective identities (based on identification with social groups) can be distinguished from personal identities (based on characteristics that one perceives to be unique to the self; Ashmore et al., 2004). Although the notion of collective identity has been widely applied in multicultural counseling psychology research—especially in the constructs of racial identity and ethnic identity (Cokley & Vandiver, 2012)—its impact on masculinity psychological research has been limited (Wong, Steinfeldt, Speight, & Hickman, 2010; for an exception, see Wade, 1998). One possibility for this neglect is that collective identity has typically been applied to research on subordinate groups to explain how collective identities may serve as protective or risk factors in the context of oppression (Cokley & Vandiver, 2012), whereas men are generally regarded as a socially dominant and privileged group in society (Connell & Messerschmidt, 2005). Nevertheless, not all men might feel that their gender is valued in society (Moss-Racusin, Good, & Sanchez, 2010); this might be particularly true for minority groups, such as male Asian international students, who might experience their masculine identities as marginalized collective identities (Liu & Chang, 2006).

Applying the construct of collective identity to masculinity research, we propose the term masculine identity\(^2\) to refer to the cognitive and affective processes through which men perceive themselves in relation to their male gender group. Whereas masculine identity is a multidimensional construct that consists of several dimensions (Leach & García, 2013; Moss-Racusin et al., 2010), we posit that the centrality of men’s masculine identity—defined as the extent to which being a man is central to one’s self-concept—may be a useful dimension that explains the conditions under which racial and gender-related stressors impact male Asian international students’ mental health. No published study has tested the moderating effects of masculine identity centrality on the link between racial/masculinity-related stressors and mental health outcomes. Nevertheless, studies on the moderating effects of the centrality dimension of other collective identities might be instructive. One study revealed that the centrality of women’s gender identity exacerbated the extent to which sexism was perceived as physiologically and psychologically threatening (Eliezer, Major, & Mendes, 2010). In the same vein, studies have shown that the centrality of racial identity accentuated the positive relationship between exposure to racial discrimination and indicators of psychological distress for Latinos (Burrow & Ong, 2010; McCoy & Major, 2003). The findings from Burrow and Ong underscore the relevance of the centrality dimension because although the authors of the study tested two other dimensions of collective identities—public regard (beliefs about how others view one’s ingroup) and private regard (the value one ascribes to her or his ingroup)—centrality was the only dimension that moderated the effects of racial discrimination on indicators of psychological distress.

A common thread in the foregoing studies is that the centrality of one’s collective identity may exacerbate the link between discrimination and psychological distress. These findings dovetail with previous conceptual work on collective identity. In particular, Leach et al. (2008) theorized that among various dimensions of collective identity, the centrality of one’s collective identity would cause individuals to be sensitive to intergroup events, especially threats to their ingroups. Put differently, when one’s collective identity is perceived as a core component of the self, threats to the collective identity are more likely to be interpreted as threats to the self, thus exacerbating the psychological costs of discrimination (McCoy & Major, 2003; Sellers & Shelton, 2003). Accordingly, we posit that the centrality of male Asian international students’ masculine identities would accentuate (a) the link between perceived racial discrimination and subjective masculinity stress, (b) the relationship between subjective masculinity stress and psychological distress, and (c) the mediation effect from perceived racial discrimination to subjective masculinity stress to psychological distress.

Hypotheses

Against this backdrop, we proposed a moderated mediation model to examine the relationships among male Asian international students’ perceived racial discrimination, subjective masculinity stress, masculine identity centrality, and psychological distress (see Figure 1). This moderated mediation model has been described by Edwards and Lambert (2007) as a first- and second-stage model—that is, the associations between the predictor and the mediator and between the mediator and the outcome are moderated by another variable. Within this model, we tested three hypotheses. In Hypothesis 1, we anticipated that the relationship between perceived racial discrimination and subjective masculinity stress would be moderated by the centrality of participants’ masculine identity. In other words, the positive association between perceived racial discrimination and subjective masculinity stress would be stronger at high levels of masculine identity centrality. In Hypothesis 2, we predicted that the positive relationship between subjective masculinity stress and psychological distress would be moderated by the centrality of participants’ masculine identity. Specifically, the association between subjective masculinity stress and psychological distress would be stronger at high levels of masculine identity centrality. In Hypothesis 3, we expected subjective masculinity stress to mediate the relationship between perceived racial discrimination and psychological distress, but only at high levels of masculine identity centrality.

Several scholars have noted that alternative, plausible models can be found in most multivariate data (Frazier, Tix, & Barron, 2004; McDonald & Ho, 2002). Although we believe that our proposed model in which perceived racial discrimination is an antecedent for Asian international men’s subjective masculinity stress is more consistent with the theoretical and empirical literature (Goff et al., 2012; Liu & Chang, 2006; Lu & Wong, 2013), it

\(^{1}\) Following Ashmore et al. (2004), we use the term collective identity instead of social identity because the latter is closely linked to social identity theory, whereas collective identity is broader in scope than this theory.

\(^{2}\) The term masculine identity has been used by some scholars to refer to individuals’ conformity to traits stereotypically associated with men (Bem, 1981). However, such an approach to conceptualizing and measuring gender identity (including masculine identity) has been criticized by Tobin et al. (2010) for not focusing on how individuals perceived themselves in relation to gender social groups.
is also plausible that male Asian international students might experience subjective masculinity stress, which then predisposes them to perceive higher levels of racial discrimination. Therefore, we also tested an alternative first- and second-stage moderated mediation model in which masculine identity centrality was retained as a moderator but perceived racial discrimination was specified as a mediator between subjective masculinity stress and psychological distress.

Two systemic reviews of the literature on international students’ psychosocial adjustment to life in the United States (Li et al., 2014; Zhang and Goodson, 2011) identified length of residence in the United States as one of the most frequently studied predictors, with most studies demonstrating that a longer duration of residence in the United States was associated with fewer psychological problems. Conceptually, the length of residence in a new culture has also been proposed as a predictor of sociocultural adaptation in Ward and Kennedy’s (1999) model of cross-cultural adaptation. Given its importance, we added the number of years of residence in the United States as a covariate in both our proposed and alternative models.

Method

Participants and Procedure

Participants were 160 Asian male international students from two public midwestern universities ($n = 120$ for University A; $n = 40$ for University B). Their countries of origin were China/Hong Kong ($n = 80; 50.0\%$), India ($n = 20; 12.5\%$), Malaysia ($n = 20; 12.5\%$), South Korea ($n = 10; 6.3\%$), Taiwan ($n = 10; 6.3\%$), Indonesia ($n = 5; 3.1\%$), Japan ($n = 3; 1.9\%$), Thailand ($n = 2; 1.3\%$), and other Asian countries ($n = 8, 5.0\%$). Two participants did not list their countries of origin. Participants’ ages ranged from 18 to 43, with a mean of 24.98 ($SD = 4.92$). Participants had spent an average of 2.81 years ($SD = 2.36$) in the United States.

The study consisted of an online survey. The questionnaires in the survey were not counterbalanced. A list of Asian male international students was obtained from the registrar’s office in University A, and those students were invited to participate in the survey through e-mail. For University B, the international student office sent an invitation e-mail to all Asian male international students to participate in the survey.

Instruments

For all of the following scales, the mean score was used as the overall score.

Perceived racial discrimination. Perceived racial discrimination was assessed by the Perceived Discrimination subscale of the Acculturative Stress Scale for International Students (ASSIS; Sandhu & Asrabadi, 1994). A sample item is “I am treated differently because of my race.” Participants were asked to rate items on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores on the ASSIS indicate greater perceived racial discrimination. The coefficient alpha was .92 for the present study. Validity evidence was supported by positive associations with depressive symptoms and suicide ideation among Asian international college students (Wang et al., 2013).

Psychological distress. Psychological distress was assessed by the Hopkins Symptom Checklist-21-item version (HSC; Green, Walkey, McCormick, & Taylor, 1988). We selected the HSC as our measure of psychological distress because previous research demonstrated its factorial invariance across racially diverse groups of college students (Cepeda-Benito & Gleaves, 2000) and also because of its prior validity evidence with Asian international students. Specifically, Wei et al. (2012) found that the HSC was positively associated with acculturative stress among Chinese international college students (Wei et al., 2012).

The HSC includes items on general feelings of distress (seven items), somatic distress (seven items), and performance difficulty (seven items). A sample item is “Feeling people are unfriendly or dislike you.” Participants rated items on a 4-point Likert scale ranging from 1 (not at all) to 4 (extremely). Higher scores indicate higher levels of psychological distress. The coefficient alpha was .90 in the present study.

Subjective masculinity stress. The 10-item Subjective Masculinity Stress Scale (SMSS; Wong et al., 2013) provides a global assessment of the frequency of stress related to men’s subjective experiences of being male. The instructions for the SMSS emphasize that the items in the scale relate to gender, particularly as it relates to respondents’ experiences as men:

The following questions are about gender issues. Please describe your personal experience of what it means to be a man by completing the following sentence, “As a man . . .” 10 times. Just give 10 different responses. Respond as if you were giving the answers to yourself, not to somebody else. There are no right or wrong responses. Don’t worry about logic or importance, and don’t over-analyze your responses. Simply write down the first thoughts that come to your mind.

After respondents complete the sentence, “As a man . . .” 10 times, they are told to refer to their written responses and then rate each of their 10 “As a man . . .” experiences based on how often each was stressful (1 = Never/Almost never, 5 = Always/Almost always). Examples of open-ended responses from our data include “I am expected to support my parents financially” and “I cannot show my weakness in front of others.” An earlier study revealed that the top five most common dimensions of subjective masculinity experiences arising from men’s open-ended responses to the 10 “As a man . . .” prompts were family, responsibility, emotional toughness, work, and physical body, themes that converge with salient masculinity concerns identified in the literature (Wong et al., 2011). It should be noted, however, that SMSS scores are computed on the basis of the average ratings of the 10 frequency of stress items rather than
on participants’ open-ended responses. High scores reflect more frequent experiences of subjective masculinity stress. Wong et al. (2013) provided evidence for the internal reliability, test–retest reliability, and construct validity of the SMSS using a diverse sample of Asian, Latino, and White American men. In terms of construct validity, the SMSS demonstrated significant and positive associations with other masculinity measures—the Gender Role Conflict Scale, the Masculine Gender Role Stress Scale, and the Conformity to Masculine Norms Inventory—46, with effect sizes in the small to medium range (Wong et al., 2013). Moreover, in a hierarchical multiple regression analysis, the SMSS was the only masculinity measure that was significantly and positively related to psychological distress after controlling for the other three masculinity scales (Wong et al., 2013). The coefficient alpha for this study was .91.

Centrality of masculine identity. The three-item Centrality subscale of the Measure of In-Group Self-Investment (MISI; Leach et al., 2008) was used to assess participants’ levels of masculine identity centrality. The MISI was developed as a broad measure of self-investment in one’s ingroup identification and has been widely applied to assess identification with numerous social groups, including ingroup gender, racial and ethnic minority groups, religious groups, nationality, university students, psychology students, family, a public-sector organization, and an online forum group (Leach et al., 2008; Postmes, Haslam, & Jans, 2013; Seol & Lee, 2012; Smith et al., 2013). A factor analysis of the MISI (Leach et al., 2008) showed that self-investment was indicated by the specific dimensions of centrality of one’s ingroup identity, solidarity with one’s ingroup, and satisfaction with one’s ingroup. This factor structure has been found to be similar across identification with diverse social groups (Leach et al., 2008), including university male students’ masculine identities (Leach & Garcia, 2013). Participants rated items on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Participants were instructed to respond to the scale on the basis of how they “feel about being a man.” Higher scores indicate that being a man is a central aspect of one’s identity. An example of an item is, “The fact that I am a man is an important part of my identity.” Leach et al. (2008) showed that relative to the dimensions of solidarity and satisfaction, centrality exhibited the strongest positive association with perceived threat to one’s ingroup. The coefficient alpha was .85 for this study.

Results

Preliminary Results

The original sample consisted of 178 participants; however, the data from 18 participants were deleted because these participants did not correctly answer a validity check question embedded in the survey (“Please click on the option, ‘Strongly Agree’”), suggesting possible lack of attention to the items in the survey. Little’s missing completely at random test indicated that missing data were missing completely at random, χ²(194) = 179.5, p = .765. Missing data (33.6% of data points) were imputed using the expectation maximization algorithm, a maximum likelihood method that has been shown to be superior to older missing data methods, such as mean substitution or listwise deletion (Schafer & Graham, 2002).

Given that data were collected from two universities, we tested whether participants from both universities differed in perceived racial discrimination, subjective masculinity stress, masculine identity centrality, and psychological distress. The results of four t tests identified no significant differences in any of the variables, t(158) = .32–.59; ps > .05.

The means, standard deviations, and intercorrelations of the variables used in our main analyses are presented in Table 1. At the bivariate level, perceived racial discrimination and subjective masculinity stress were both significantly related to psychological distress. The centrality of participants’ masculine identity was not significantly related to any of the other main variables. Years in the United States was significantly and negatively related to subjective masculinity stress but significantly and positively associated with perceived racial discrimination.

Data Analytic Plan

Hypotheses 1 and 2 were tested using hierarchical multiple regression. Significant moderation effects were probed using the simple slopes analysis (Frazier et al., 2004) by applying PROCESS, an SPSS macro (Hayes, 2013). Moderation and mediated mediation effects were examined at one standard deviation above and below the mean of masculine identity centrality to represent high and low levels, respectively. To test Hypothesis 3, we used PROCESS to examine mediation using bias-corrected bootstrapping. To examine mediation effects, we computed the means of 5,000 estimated indirect effects by creating 5,000 bootstrap samples using random sampling with replacement. We identified significant mediation effects if the 95% confidence intervals of the indirect effects did not include zero. A one-tailed test was used given that our hypotheses were directional in nature. For all analyses, predictors and the moderator were standardized as z scores to facilitate the interpretation of the moderation effects. In all our multiple regression models, the highest variance inflation factor value was 1.21, suggesting no evidence of multicollinearity.

Main Results

The results for the hierarchical multiple regression for Hypotheses 1 and 2 are reported in Table 2. For Hypothesis 1, subjective masculinity stress was the outcome variable. Our findings focus on the final step of the regression model. Number of years in the United States was significantly and negatively associated with subjective masculinity stress. Perceived racial discrimination and masculine identity centrality were both not significantly related to subjective masculinity stress. In support of Hypothesis 1, the Perceived Racial Discrimination × Masculine Identity Centrality interaction effect was significant (see Figure 2). At low levels of masculine identity centrality, perceived racial discrimination was not significantly related to subjective masculinity stress (B = −.03, SE = .06, p = .360). In contrast, when masculine identity centrality was high, perceived racial discrimination was significantly and positively related to subjective masculinity stress.  

3 A content analysis of participants’ open-ended responses is beyond the scope of this article. However, for an example of a qualitative analysis of open-ended responses to these prompts based on a different sample of Asian and Asian American men, see Lu and Wong (2013).
was strengthened by masculine identity centrality.4

For Hypothesis 2, psychological distress was our outcome variable. Perceived racial discrimination was entered as a covariate in Step 1 so that the regression model would be consistent with the overall moderated mediation model tested. Thus, the effect of perceived racial discrimination in this regression model was identical to the direct effect of perceived racial discrimination on psychological distress in the moderated mediation model (see findings for Hypotheses 3). On the basis of the final step of the regression model, perceived racial discrimination, but not the number of years in the United States, was significantly and positively related to psychological distress. Subjective masculinity stress, but not masculine identity centrality, was significantly and positively related to psychological distress. We found support for Hypothesis 2: The Subjective Masculinity Stress \times Masculinity Identity Centrality interaction effect was significant (see Figure 3).

At low levels of masculine identity centrality, subjective masculinity stress was significantly and positively related to psychological distress \( (B = .06, SE = .03, p = .038) \). At high levels of masculine identity centrality, subjective masculinity stress exhibited a stronger, significant, and positive relationship with psychological distress \( (B = .12, SE = .03, p < .001) \), suggesting that the centrality of masculine identity intensified the positive link between subjective masculinity stress and psychological distress.

In Hypothesis 3, we predicted a moderated mediation effect, defined as the product of the conditional effect of perceived racial discrimination on subjective masculinity as a function of masculine identity centrality and the conditional effect of subjective masculinity stress on psychological distress as a function of masculine identity centrality (see Figure 1). Collectively, the predictors accounted for 33.61% of the variance in psychological distress. The direct effect from perceived discrimination to psychological distress was positive and significant \((B = .49, B = .18, SE = .03, p < .001)\). The mediation effect from perceived racial discrimination to subjective masculinity stress to psychological distress was not significant at low levels of masculine identity centrality \((B = -.002, SE = .01, 95\% CI [-.018, .006])\). In contrast, this mediation effect was significant at high levels of masculine identity centrality \((B = .02, SE = .02, 95\% CI [.004, .058])\). Following the procedure outlined by Hayes (2013) for testing the significance of moderated mediation effects, we estimated the difference between the abovementioned conditional mediation effects at high (1 SD above the mean) versus low levels (1 SD below the mean) of masculine identity centrality and tested whether this difference was significantly different from zero using bias-corrected bootstrapping. We found that the difference between the two conditional mediation effects was significant \((B = .03, 95\% CI [.004, .064])\), providing evidence for a significant moderated mediation effect.

Table 1
Means, Standard Deviations, and Intercorrelations

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
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<tr>
<td>1. Perceived racial discrimination</td>
<td>.92</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Subjective masculinity stress</td>
<td>-.001</td>
<td>.91</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Psychological distress</td>
<td>.48**</td>
<td>.28**</td>
<td>.90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Centrality of masculine identity</td>
<td>-.01</td>
<td>.13</td>
<td>.09</td>
<td>.85</td>
<td></td>
</tr>
<tr>
<td>5. Years in the United States</td>
<td>.23**</td>
<td>-.34**</td>
<td>-.07</td>
<td>.02</td>
<td></td>
</tr>
<tr>
<td>(M)</td>
<td>2.57</td>
<td>3.21</td>
<td>2.00</td>
<td>4.97</td>
<td>2.81</td>
</tr>
<tr>
<td>(SD)</td>
<td>.78</td>
<td>.66</td>
<td>.36</td>
<td>1.00</td>
<td>2.56</td>
</tr>
</tbody>
</table>

Note. \(N = 160\). Cronbach’s alphas are displayed in bold. ** \(p < .01\).

Table 2
Multiple Regression Models Predicting Subjective Masculinity Stress and Psychological Distress

<table>
<thead>
<tr>
<th>Variable</th>
<th>(B)</th>
<th>(SE)</th>
<th>(\beta)</th>
<th>(\Delta R^2)</th>
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<td>Outcome: Subjective masculinity stress</td>
<td></td>
<td></td>
<td></td>
<td>.12***</td>
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<tr>
<td>Step 1</td>
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</tr>
<tr>
<td>Years in the United States</td>
<td>-.22</td>
<td>.05</td>
<td>-.34***</td>
<td>.01</td>
</tr>
<tr>
<td>PRD</td>
<td>0.05</td>
<td>.05</td>
<td>.08</td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td>.02</td>
</tr>
<tr>
<td>Years in the United States</td>
<td>-.24</td>
<td>.05</td>
<td>-.36***</td>
<td>.02</td>
</tr>
<tr>
<td>PRD</td>
<td>0.05</td>
<td>.05</td>
<td>.08</td>
<td></td>
</tr>
<tr>
<td>CMI</td>
<td>0.09</td>
<td>.05</td>
<td>.14</td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td></td>
<td></td>
<td></td>
<td>.02*</td>
</tr>
<tr>
<td>Years in the United States</td>
<td>-.24</td>
<td>.05</td>
<td>-.36***</td>
<td>.02*</td>
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<td>PRD</td>
<td>0.05</td>
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<tr>
<td>PRD \times CMI</td>
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<td>.04</td>
<td>.15</td>
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</table>

Outcome: Psychological distress

| Step 1                  |       |        |          | .27***       |
| Years in the United States | -.07  | .03    | -.19**   | .03           |
| PRD                     | 0.19  | .03    | .53***   |               |
| Step 2                  |       |        |          | .05***       |
| Years in the United States | -.04  | .03    | -.10     | .04           |
| PRD                     | .18   | .03    | .51***   |               |
| SMS                     | .09   | .03    | .23***   |               |
| CMI                     | .02   | .02    | .07       |               |
| Step 3                  |       |        |          | .01*         |
| Years in the United States | -.04  | .03    | -.10     | .02           |
| PRD                     | .18   | .03    | .49***   |               |
| SMS                     | .09   | .03    | .24***   |               |
| CMI                     | .02   | .02    | .06       |               |
| SMS \times CMI          | .03   | .02    | .12*      |               |

Note. \(N = 160\). PRD = perceived racial discrimination; CMI = centrality of masculine identity; SMS = subjective masculinity stress. ** \(p < .05\). *** \(p < .01\). **p < .001.

Results for Alternative Model

Next, we tested our alternative first- and second-stage mediated mediation model in which masculine identity centrality was

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4 Although not part of our hypotheses, we reran our multiple regression analysis to test whether our findings for Hypothesis 1 would be different if we added psychological distress as a covariate in Step 1. The findings were similar to our earlier regression findings: The Perceived Racial Discrimination \times Masculinity Identity Centrality interaction effect significantly predicted subjective masculinity stress \((B = 0.08, SE = .04, \beta = .16, p = .016)\). This suggests that the interaction effect uniquely predicted subjective masculinity stress beyond the influence of psychological distress.
retained as a moderator but perceived racial discrimination was specified as a mediator between subjective masculinity stress and psychological distress. Consistent with the findings of our earlier proposed model, masculine identity centrality significantly moderated the relationship between subjective masculinity stress and perceived racial discrimination ($\beta = .16, B = .11, SE = .06, p = .021$). However, masculine identity centrality did not significantly moderate the association between perceived racial discrimination and psychological distress ($\beta = -.06, B = -.02, SE = .02, p = .175$). The mediation effect from subjective masculinity stress to perceived racial discrimination to psychological distress was not significant at low levels of masculine identity centrality ($B = -.01, SE = .02, 95\% CI [-.049, .021]) but was significant at high levels of masculine identity centrality ($B = .03, SE = .02, 95\% CI [.005, .075])$. Nevertheless, the difference between these two conditional mediation effects was not significant ($B = .04, 95\% CI [-.0003, .083])$. Hence, there was no evidence for a significant moderated mediation effect. Collectively, these findings suggest that our data were more consistent with our proposed moderated mediation model with subjective masculinity stress as a mediator than with the alternative model specifying perceived racial discrimination as the mediator.

**Discussion**

In this study, we tested a moderated mediation model involving male Asian international students’ perceived racial discrimination, subjective masculinity stress, masculine identity centrality, and psychological distress. We found support for our three hypotheses. First, male Asian international students who perceived high levels of racial discrimination also reported greater subjective masculinity stress, but only when being a man was central to their identities. Second, male Asian international students who experienced heightened subjective masculinity stress also reported greater psychological distress, but the link between subjective masculinity stress and psychological distress was stronger when masculine identity centrality was high. Third, subjective masculinity stress mediated the relationship between perceived racial discrimination and psychological distress only at high but not low levels of masculine identity centrality. The difference between the two conditional mediation effects at high and low levels of masculine identity centrality was significant, providing evidence for a significant moderated mediation effect. Overall, these results dovetail with previous empirical research documenting that the centrality of one’s collective identity accentuated the link between perceived discrimination and psychological distress (Burrow & Ong, 2010; Eliezer et al., 2010; McCoy & Major, 2003).

In addition to our hypothesized model, we also tested an alternative moderated mediation model in which masculine identity centrality was retained as a moderator but perceived racial discrimination was specified as a mediator between subjective masculinity stress and psychological distress. Although masculine identity centrality significantly moderated the relationship between subjective masculinity stress and perceived racial discrimination, masculine identity centrality did not significantly moderate the association between perceived racial discrimination and psychological distress. Furthermore, we did not find evidence that the mediation effect from subjective masculinity stress to perceived racial discrimination to psychological distress was significantly moderated by masculine identity centrality. Overall, we found more support for our proposed moderated mediation model with subjective masculinity stress as a mediator than with the alternative model specifying perceived racial discrimination as the mediator.

Our study contributes to the counseling psychology literature in several ways. First, our study is the first to demonstrate a link between perceived racial discrimination and masculinity-related stress among male Asian international students with high levels of...
masculine identity centrality. For such individuals, racism might heighten their susceptibility to subjective masculinity stress because of the mutually constitutive relationship between race and gender (Shields, 2008). For instance, because notions of masculinities are closely connected to scholastic abilities in many Asian cultures (Sheu, 2010), racial discrimination that inhibits academic achievement may represent a threat to male Asian international students’ subjective masculinity experiences. Although we focused on male Asian international students in this study, our basic premise that under certain conditions, racial and masculinity-related stressors might be linked to one another may have broader applications to other men of color (Goff et al., 2012). We therefore encourage researchers to test this proposition in diverse racial minority populations.

Second, our findings underscore the value of masculine identity centrality—and more broadly, the centrality dimension of collective identity—as a construct to understand the psychosocial processes that affect men’s psychological health. It is noteworthy that all our significant findings on the relationships among perceived racial discrimination, subjective masculinity stress, and psychological distress were conditional on the moderating effects of masculine identity centrality. When one’s collective identity is perceived as a central component of the self, threats to collective identity are more likely to be interpreted as threats to the self, thus exacerbating the psychological costs of discrimination (McCoy & Major, 2003; Sellers & Shelton, 2003). An alternative interpretation is that when a particular collective identity (e.g., gender) is critical to one’s self-concept, one might not have many other important collective identities to buffer the negative effects of stressful events that threaten that collective identity (Linville, 1985). Thus, when being a man is central to male Asian international students’ identities, they might be more likely to interpret racial discrimination as relevant to their gender and are more psychologically harmed by experiences of subjective masculinity stress.

Although our findings present high levels of masculine identity centrality as a risk factor for subjective masculinity stress and psychological distress, an alternative interpretation is that low levels of masculine identity centrality was a protective factor that weakened the link between perceived racial discrimination and subjective masculinity stress and between subjective masculinity stress and psychological distress. For example, among participants with low levels of masculine identity centrality, perceived racial discrimination was not significantly related to subjective masculinity stress. Perhaps some male Asian international students might have low levels of identification with their male gender group (and instead identify more strongly with other collective identities) as a strategy for coping with gendered forms of racism and negative stereotypes of Asian men (Liu & Chang, 2006).

We also speculate that the centrality of masculine identity has wider implications for the psychological study of men’s mental health. For example, research on the link between men’s conformity to masculine norms and mental health outcomes has sometimes produced inconsistent findings (Wong, Owen, & Shea, 2012), which might suggest the need to examine moderators of this relationship (Frazier et al., 2004). In this regard, it would be interesting to assess whether masculine identity centrality exerts an exacerbating or an attenuating effect on the link between conformity to masculine norms and mental health outcomes among diverse groups of men (e.g., gay men).

Despite the contributions of our study, several limitations should be noted. First, our sample was too small to examine differences across diverse Asian nationalities, an area that we encourage researchers to explore in future. For example, one possibility is that perceived racial discrimination might be more strongly related to subjective masculinity stress for East Asian men than for South Asian male international students because stereotypes about East Asian men (e.g., being asexual or effeminate) may be more negative than those for South Asian men.

Second, we could not empirically identify what types of racial discrimination were most threatening to participants’ subjective masculinity experiences. One way to address this question in future research is the use of qualitative interviews to examine male Asian international students’ phenomenological experiences of gendered racism. Additionally, we encourage researchers to develop measures of gendered racism that speak to the unique discriminatory experiences of Asian and American men (cf. Schwing, Wong, & Fann, 2013, who developed a measure of gendered racism for African American men).

Third, we used only one outcome measure in our moderated mediation model—the HSC, a global measure of psychological distress that includes general feelings of distress, somatic distress, and performance difficulty. However, it is possible that the use of other measures of psychological distress, such as the Kessler Psychological Distress Scale (which focuses on depressive and anxiety symptoms; Kessler et al., 2002), might have yielded different findings. Moreover, future research should examine other outcomes relevant to international students, such as academic stress and acculturative stress. Fourth, we did not assess participants’ English proficiency, which may have had an impact on participants’ perceived racial discrimination.

Fifth, we used a regression-based, path-analytic approach (Hayes, 2013) to test our moderated mediation model. Unfortunately, our sample size did not allow us to use structural equation modeling (SEM) with latent variables, which has the advantage of addressing measurement error (Weston & Gore, 2006). Hence, we encourage researchers to use SEM to test the relationships among racial and gendered stressors and mental health outcomes using larger samples. Finally, our moderation effects contributed only a small (1%–2%) proportion of additional variance to the outcome variables. However, several scholars have observed that moderation effects in nonexperimental studies tend to be small but that such small effects can still be considered meaningful (Aguiinis, Beatty, Boik, & Pierce, 2005; McClelland & Judd, 1993).

Our findings present a few practical implications for counseling male Asian international students. When working with male Asian international students, we encourage clinicians to consider exploring the potential connections between their clients’ stressful experiences of race and gender (Liang et al., 2010; Wong, Owen, & Shea, 2012). For instance, a male Asian international client who discloses that he experiences racial discrimination in an academic
context (e.g., negative evaluations during class discussions) can also be invited to explore how this experience impacts his manhood. Clinicians can also discuss the potential influence of masculine identities on their male Asian international clients’ experience of gender-related stress and psychological health. For example, clinicians can work with their clients to explore and embrace a broader range of collective identities (e.g., being a member of a peer group) beyond their masculine identities. Overall, we encourage researchers and clinicians to examine the interlocking connections among race, gender, and collective identities and their impact on mental health outcomes.

References


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