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## Racial-Ethnic Microaggressions, Coping Strategies, and Mental Health in Asian American and Latinx American College Students: A Mediation Model

Delida Sanchez,

Whitney N. Adams,

Sarah C. Arango,

Alaina E. Flannigan

Department of Educational Psychology, The University of Texas at Austin.

### Abstract

The current study examined the link between racial-ethnic microaggressions and psychological distress among 308 Asian American ( $n = 164$ ) and Latinx American ( $n = 144$ ) college students (54% female). Additionally, coping strategies (engagement and disengagement) were examined as potential mediators in this link. A confirmatory factor analysis (CFA) of the Racial-Ethnic Microaggressions Scale (REMS) was conducted to test the factor structure with an Asian American and Latinx American emerging adult population (Ages 18–26). A multigroup path analysis of the analytic model was then performed to examine the hypothesized relations between racial-ethnic microaggressions, coping strategies, and psychological distress among Asian American and Latinx American participants. Results of the CFA did not support the original 6-factor structure of the REMS in this sample. However, a 1-factor structure (i.e., total scale score) indicated good fit. Findings from the path analysis indicated that among the total sample, racial-ethnic microaggressions were directly linked to increased psychological distress. Furthermore, engagement coping strategies partially mediated this relationship and were linked to less psychological distress.

### Keywords

microaggressions; mental health; coping; Asian; Latinx college students

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In recent years, there has been a substantial increase in the Asian American and Latinx<sup>1</sup> American college student populations on college campuses throughout the United States. This is commensurate with statistics indicating that Asian American and Latinx Americans are the two fastest growing racial/ethnic groups in the United States (Hussar & Bailey,

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Correspondence concerning this article should be addressed to Delida Sanchez, Department of Educational Psychology, The University of Texas at Austin, 1 University Station, D5800, Austin, TX 78712. delida.sanchez@austin.utexas.edu.

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<sup>1</sup>Latinx is defined as “a person of Latin American origin or descent and is used as a gender-neutral alternative to Latino or Latina” (Oxford English online dictionary, Latinx, n.d.)

2016). For example, in 2015, Asian college students accounted for approximately 62.6% of college students, which is up from 55.9% in 2000 (U.S. Department of Commerce, 2016). Similarly, Latinx Americans accounted for approximately 36.6% of full-time U.S. college students, which is up from 21.7% in 2000 (U.S. Department of Commerce, 2016). The number of Asian American and Latinx American students enrolled in postsecondary degree-granting institutions is projected to increase by 10% and 25%, respectively, by 2024, whereby it is projected that 14% of the population will be Asian and 24% will be Latinx (Cohn, 2015; Hussar & Bailey, 2016).

The rise in college student enrollment among Asian Americans and Latinx Americans has occurred in spite of institutional and educational forms of discrimination (e.g., antibilingual education, anti-affirmative action, and anti-immigrant policy movements; Crockett et al., 2007). However, evidence shows that both Asian American and Latinx American college students are tasked with devoting additional energy to coping with racial-ethnic microaggressions—subtle everyday forms of discrimination (Nadal, Escobar, Prado, David, & Haynes, 2012). For example, Asian American and Latinx American students are often stereotyped as foreigners and singled out based on their linguistic skills, accent, country of origin, immigration status, and their physical characteristics (Cheryan & Monin, 2005; Huynh, 2012; Jiménez, 2008; Sue, Bucceri, Lin, Nadal, & Torino, 2007). The attributional ambiguity of racial-ethnic microaggressions (e.g., uncertainty about whether one is being judged based on stereotypes or prejudices about their race or ethnicity) is theorized to be particularly distressing (Sue, Capodilupo, et al., 2007). Specifically, the extant research has shown that racial-ethnic microaggressions were linked with increased depression and negative affect (McCabe, 2009; Nadal et al., 2012), somatic symptoms (Ong, Burrow, Fuller-Rowell, Ja, & Sue, 2013), and heightened traumatic symptoms (L. Torres & Taknint, 2015) among Asian American (Nadal et al., 2012; Sue, Bucceri, et al., 2007), and Latinx American (Nadal, Mazzula, Rivera, & Fujii-Doe, 2014; Rivera, Forquer, & Rangel, 2010; Yosso, Smith, Ceja, & Solórzano, 2009) college students. Racial-ethnic microaggressions have also been associated with negative educational outcomes (e.g., poor academic performance and educational success) among Asian American and Latinx American college students (Solórzano, Allen, & Carroll, 2002; Sue, Bucceri, et al., 2007).

Despite the burgeoning body of research in this area, few studies have directly examined how Asian American and Latinx American college students cope with racial-ethnic microaggressions. According to stress theory, coping is a mechanism by which individuals understand, reframe, or react to the experience of a stressful event (Lazarus & Folkman, 1984). The types of coping strategies utilized (e.g., how one appraises and responds to a stressor) is critical in determining whether the individual will be stressed by the experience (Lazarus, 1990). Adaptive outcomes contribute to the resolution of the stressor and increase psychological functioning, whereas maladaptive outcomes worsen problems associated with the stressor and hinders psychological functioning. In the current study, we examine the potential mediating role of coping strategies in the link between racial-ethnic microaggressions and psychological distress (e.g., symptoms of depression and anxiety) among an Asian American and Latinx American college student sample. A better understanding of the coping mechanisms utilized in response to racial-ethnic

microaggressions may help determine which strategies may be efficacious in promoting resilience and to fortifying their mental health and academic success.

## Racial-Ethnic Microaggressions

The study of racial-ethnic microaggressions has been the object of much theory and research building over the past 10 years (G. Wong, Derthick, David, Saw, & Okazaki, 2014). The term *racial microaggression* was originally defined by Pierce, Carew, Pierce-Gonzalez, and Wills (1978) to describe “seemingly minor but damaging put downs and indignities experienced by African Americans that keep them psychologically accepting of their disenfranchised state” (p. 66). Over the past decade, Sue, Capodilupo, and colleagues (2007) further developed the concept of microaggressions and proposed a framework to classify “verbal, behavioral, and environmental racial slights or insults towards persons who are members of an ethnic minority group” and to explore the psychological consequences of these experiences for target groups (p. 271). Racial microaggressions are purported to occur at the institutional level (e.g., in college classroom settings and other campus settings; Rivera et al., 2010; Sue, Capodilupo, et al., 2007; Watkins, Labarrie, & Appio, 2010) and on an interpersonal level (e.g., by one’s peers; Yosso et al., 2009). Examples of racial-ethnic microaggressions include instances whereby students of color are treated as intellectually inferior or criminally deviant by faculty, staff, administration, and peers (Smith, Hung, & Franklin, 2011), and/or exposed to racially offensive activities on campus (e.g., racially themed parties, the object of racially offensive jokes; Garcia, Johnston, Garibay, Herrera, & Giraldo, 2011).

The study of racial-ethnic microaggressions has been studied most extensively with African American college populations (Solórzano, Ceja, & Yosso, 2000; Sue et al., 2008; L. Torres, Driscoll, & Burrow, 2010; Watkins et al., 2010), whereas the experiences of Asian Americans and Latinx Americans have been studied less frequently. However, evidence suggests that Asian American and Latinx American college students may experience specific microaggressions based on their perceived racial/ethnic group membership (Forrest-Bank & Jenson, 2015; Rivera et al., 2010). For example, extant research has shown that many Asian American students reported microaggressions based on being stereotyped as the “model minority,” which reflects the assumption that Asians do not experience discrimination, and they have overcome socioeconomic barriers because of hard work and patience (F. Wong & Halgin, 2006). Conversely, studies with Latinx American students showed that they reported microaggressions, such as being perceived as a criminal (Dixon & Linz, 2000), coming from a disadvantaged background (Trujillo, 2011), having low success in school (Guyll, Madon, Prieto, & Scherr, 2010), working in the service industry (e.g., manual labor and factories), or occupying jobs that should be reserved for White U.S. citizens (Lapinski, Peltola, Shaw, & Yang, 1997).

Although Asian Americans and Latinx Americans have experienced distinct historical patterns of oppression and ascribed stereotypes in the United States (Forrest-Bank & Jenson, 2015), compared with other racial-ethnic groups (e.g., African Americans, and Native Americans), they also report similar types of microaggressions, such as being stereotyped as foreigners and perceived as speaking poor English, regardless of how

long their families have actually been in the United States (Cheryan & Monin, 2005; Huynh, 2012; Sue, Bucceri, et al., 2007). Additionally, many Asian Americans and Latinx Americans, particularly women, experience higher rates of exoticization compared with other racial groups. For example, Asian women are often assumed to be subservient, trophies, or “Madame Butterfly” (Pyke & Johnson, 2003; Sue, Capodilupo, et al., 2007; Uchida, 1998). Similarly, Latina women are often portrayed as having highly sexualized features like “red lips, big bottoms, large hips, voluptuous bosoms, and small waists,” as well as wearing sexually suggestive fashion, such as “high heels and seductive clothing” (Guzmán & Valdivia, 2004, p. 212). Asian men, on the other hand, are often stereotyped as demasculinized and ignored (Liu & Wong, 2016; Nadal et al., 2015), and Latino men are stereotyped as criminal, deviant, and lazy (Vasquez-Tokos & Norton-Smith, 2017). Overall, given the multidimensional nature of microaggressions and its negative consequences on mental health outcomes among students of color, more research is warranted to identify coping mechanisms that are linked to better mental health outcomes.

### Coping With Racial-Ethnic Microaggressions

The stress and coping model has been identified as a particularly relevant framework for conceptualizing and investigating the role of stress in a variety of mental health outcomes (Lazarus & Folkman, 1984). This framework may be particularly useful for understanding how Asian American and Latinx American college students respond psychologically to racial-ethnic microaggressions experiences. In particular, the stress associated with one’s social and environmental context (e.g., traumatic events, daily hassles, or chronic strains) is purported to affect the well-being of individuals not only through the behavioral, physical, or cognitive experiences of stress but also through the effectiveness, or lack thereof, of the coping strategies employed (Lazarus & Folkman, 1984). According to Lazarus and Folkman (1984), coping, defined as “one’s cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person” (p. 141), mediates the relationship between a stressor and stress. Thus, the manner in which an individual copes with that event will, in turn, determine whether they are stressed by the experience.

The types of coping strategies (i.e., cognitive or behavioral strategies) used to manage or tolerate stressors have often been classified into two broad categories: engagement strategies and disengagement strategies (Brougham, Zail, Mendoza, & Miller, 2009). Tobin, Holroyd, and Reynolds (1984) described engagement coping strategies as attempts to actively manage the stressful situation or event through problem-solving behaviors, positive cognitive reframing, and emotional support seeking. Problem solving refers to behavioral and cognitive strategies designed to eliminate the source of stress by changing the situation. Cognitive restructuring refers to cognitive strategies that alter the meaning of the stressful event. Emotional support seeking refers to seeking emotional support from people and one’s family and friends. Alternatively, disengagement coping is defined as attempts to remove oneself mentally, emotionally, and physically away from stressors, which includes problem avoidance, self-criticism, wishful thinking, and social withdrawal (Tobin, Holroyd, Reynolds, & Wigal, 1989). Problem avoidance refers to the denial of problems and avoidance of thoughts or actions about the stressful event. Self-criticism refers to blaming

oneself for the situation and criticizing oneself or engaging in risk behaviors. Wishful thinking refers to cognitive strategies that include denial that an event occurred, reframing, or symbolically altering the situation. Social withdrawal refers to withdrawing from family and friends.

The stress and coping model has framed much of the literature on racism and discrimination and mental health outcomes among populations of color (Clark, Anderson, Clark, & Williams, 1999; Harrell, 2000). In particular, the biopsychosocial model of racism as a stressor (Clark et al., 1999) and Harrell's (2000) racism-related stress model are consistent with stress theory; both theories have conceptualized coping as a mechanism that explains the relations between racism/discrimination-related stress and its outcomes. Moreover, prior research on racial discrimination and Asian American and Latinx American college student populations have also provided empirical support for coping as a mediator (D. L. Lee & Ahn, 2011, 2012; R. M. Lee, Su, & Yoshida, 2005; Yoo & Lee, 2005). Specifically, extant research has shown that engagement coping strategies (e.g., positive cognitive reframing and emotional support seeking) were associated with improved functioning and reduced negative outcomes when used by Asian American college students dealing with perceived discrimination and racism-related stress (Liang, Alvarez, Juang, & Liang, 2007; Yoo & Lee, 2005). Similar mediation effects were found in studies among Latinx college students dealing with cultural stressors and perceived discrimination (D. L. Lee & Ahn, 2012). Conversely, studies have shown that disengagement coping strategies (e.g., avoidant coping and emotion-focused coping) have been associated with poor mental health outcomes among Asian college students (D. L. Lee & Ahn, 2011), and Latinx college students (Crockett et al., 2007; D. L. Lee & Ahn, 2012) dealing with acculturative stress, and perceived racial discrimination.

Although research on the psychological impact of racial-ethnic microaggressions is steadily increasing, an important limitation in the literature is that, to date, there have been no studies that have examined the role of coping strategies in the link between racial-ethnic microaggressions and mental health among Asian American and Latinx American college students. Thus, the proposed study goes beyond assessing the relationship between racial-ethnic microaggressions and mental health by providing an analysis of the potential mediating role of coping strategies used in this link. This examination is important in that it may give insight into the ways Asian American and Latinx American college students cope with racial-ethnic microaggressions stressors.

Evidence suggests that there is a direct link between racial-ethnic microaggressions and coping among Asian college students (Sue, Bucceri, et al., 2007). For example, in a study by Houshmand, Spanierman, and Tafarodi (2014), Asian international students who reported experiences of racial-ethnic microaggressions engaged in both engagement (e.g., seeking comfort in the surrounding multicultural milieu, engaging with own racial and cultural groups) and disengagement (e.g., withdrawing from academic spheres) coping strategies. Although the link between racial-ethnic microaggressions and coping have not been examined among Latinx American college students, an understanding of the role of coping strategies in the link between racial-ethnic microaggressions is important, as it may highlight important pathways of the effects of this type of stress on mental health.

Ultimately, as the population of Asian American and Latinx American college students rapidly increases, results from this study will help to determine which forms of coping strategies are most effective at promoting positive psychological well-being among these populations.

## Current Study

Despite the emerging literature on the link between racial-ethnic microaggressions and mental health among Asian American and Latinx American college populations, there is a dearth of research that examines the role of coping strategies in this link. In an effort to address this gap in the literature, our study utilizes the stress and coping framework (Lazarus & Folkman, 1984) to examine the role of engagement and disengagement coping strategies in the link between racial-ethnic microaggressions and psychological distress. First, we examine the direct link between racial-ethnic microaggressions and psychological distress. In particular, we hypothesized that racial-ethnic microaggressions would be directly and positively linked with psychological distress among all participants (Hypothesis 1).

Second, we examine the direct links between racial-ethnic microaggressions and engagement and disengagement coping strategies. We proposed that Asian American and Latinx American college students may employ both engagement and disengagement coping strategies when facing racial-ethnic microaggressions (Hypotheses 2 and 3). For example, when experiencing racial-ethnic microaggressions, one may seek out emotional support from others, attribute the stressor to something other than racial-ethnic microaggressions, vent to relieve frustrations of injustice, or create an action plan to deal with the offensive event (engagement coping). On the other hand, in response to racial-ethnic microaggressions, one may act as if nothing was happening, punish oneself for the racial slight or insult, hope the stressor goes away, or isolate oneself from family and friends (disengagement coping).

Third, we examined engagement coping strategies and disengagement coping strategies as potential mediators in the link between racial-ethnic microaggressions and psychological distress. We hypothesized that Asian American and Latinx American college students who endorsed engagement coping strategies in response to racial-ethnic microaggressions would endorse attitudes, behaviors, and values that are linked with a sense of mastery over their emotions and behaviors and report less psychological distress (Hypothesis 4). In contrast, we hypothesized that Asian American and Latinx American college students who endorsed disengagement coping strategies would be more vulnerable to negative effects of racial-ethnic microaggressions (Hypothesis 5). Overall, findings will help determine recommendations for practice, prevention, and intervention programs with Asian American and Latinx American college students. We present the conceptual model in Figure 1.

## Method

### Participants

The analysis presented included a sample of 308 undergraduate students (53.1% Asian,  $n = 164$ ; 46.9% Latinx,  $n = 152$ ) attending a large, southwestern university. The participants

ranged in age from 18 to 26 years old ( $M = 20.65$ ,  $SD = 1.61$ ). Approximately 54% ( $n = 167$ ) identified as male and 46% ( $n = 141$ ) identified as female. Roughly 11% ( $n = 35$ ) of the participants were freshman, 21% ( $n = 64$ ) were sophomores, 20% ( $n = 60$ ) were juniors, and 48% ( $n = 149$ ) were seniors. The majority of participants (93.5%,  $n = 288$ ) identified as heterosexual, 2.9% ( $n = 9$ ) identified as gay, 1.3% ( $n = 4$ ) as bisexual, 1.3% ( $n = 4$ ) as questioning, 0.3% ( $n = 1$ ) as lesbian, 0.3% ( $n = 1$ ) as queer, and 0.3% ( $n = 1$ ) as other. Of the total participant pool, 12.9% ( $n = 40$ ) were first-generation immigrant (were not born in the United States), 62.7% ( $n = 193$ ) were second generation (born in the United States to immigrant parents), 10.1% ( $n = 32$ ) were third generation, and 14% ( $n = 44$ ) were fourth generation or beyond. The majority of participants (60.7%,  $n = 187$ ) lived with a roommate off campus, 16.5% ( $n = 51$ ) lived in a college dorm, 9.4% ( $n = 29$ ) lived with their parents, 7.1% ( $n = 22$ ) lived alone, 3.2% ( $n = 10$ ) lived with their significant other, 2.3% ( $n = 7$ ) lived with other relatives, and 0.6% ( $n = 2$ ) indicated another living arrangement. The majority of the participant pool (43%,  $n = 133$ ) reported their family's annual household income between \$50,000 and \$75,000; 33% ( $n = 101$ ) reported their family's household income as greater than \$75,000; 21% ( $n = 65$ ) reported their family's household income as ranging from \$20,000 to \$50,000; and 3.2% ( $n = 10$ ) reported their family's annual household income as less than \$20,000.

## Procedure

The study received full institutional review board approval from the authors' home institution prior to recruitment of participants. Participants were recruited from a subject pool of students enrolled in a general education undergraduate class that offered course credit for research participation. Once the first author gained access to participant contact information, an electronic link was e-mailed that allowed the students to participate in the study. Data were collected online using Qualtrics survey software. The participants were asked to read the informed consent and study cover letter. They were also informed that participation was voluntary and their data would be kept confidential. In addition, participants were told that they could withdraw from the study at any time without penalty. The total survey time was estimated to be approximately 40 min. Participants were given course credit for participating but had the option of completing an alternate assignment.

## Instruments

**Racial-ethnic microaggressions.**—The Racial and Ethnic Microaggressions Scale (REMS; Nadal, 2011) is a 45-item self-report measure that assesses the frequency of racial/ethnic microaggressions over the past 6 months. The REMS includes six subscales that examine different types of microaggressions, including Assumptions of Inferiority (eight items; e.g., “Someone assumed that I would not be educated because of my race”); Second-Class Citizen and Assumptions of Criminality (seven items; e.g., “Someone avoided walking near me because of my race”); Microinvalidations (nine items; e.g., “Someone told me that people should not think about race anymore”); Exoticization and Assumptions of Similarity (nine items; e.g., “Someone asked me to teach them things in my “native language”); Environmental Microaggressions (seven reverse-scored items; e.g., “I observed people of my race portrayed positively in movies”); and Workplace and School Microaggressions (five items; e.g., “An employer or co-worker was unfriendly or unwelcoming toward me because

of my race”). Participants are asked to rate each item on a 6-point Likert scale ranging from 0 (*I did not experience this event*) to 5 (*I experienced this event 5 or more times*). Respondents can obtain a score on each of the six microaggressions subscales as well as a total score, which are determined by calculating the mean of each subscales item ratings. Higher scores indicate a greater frequency of racial-ethnic microaggressions.

The REMS was chosen for its validity and reliability with diverse ethnic minority populations including Asian American and Latinx American college students. Construct validity was established via exploratory principal components analyses ( $n = 442$ ) and confirmatory factor analysis ( $n = 218$ ; Nadal, 2011), which yielded a six-factor solution supportive of Nadal’s Racial-Ethnic Microaggressions Scale—(a) Assumptions of Inferiority, (b) Second-Class Citizen and Assumptions of Criminality, (c) Microinvalidations, (d) Exoticization/Assumptions of Similarity, (e) Environmental, and (f) Workplace and School Microaggressions—with a Cronbach’s alpha of .912 for the overall model and subscales ranging from .783 to .873 (Nadal, 2011). Additionally, convergent validity was established via further analyses that indicated high correlations of the REMS with existing measures of racism (e.g., Harrell, 2000; in Nadal, 2011).

**Coping.**—Engagement and disengagement coping strategies were assessed using a modified version of Tobin and colleagues’ (1989) Coping Strategies Inventory (CSI). This measure assesses coping strategies and responses to stressors by using *engagement* coping strategies such as problem solving, cognitive restructuring, expression of emotion, and social support (six items; e.g., “I tried to do something about it”), or *disengagement* coping strategies such as problem avoidance, wishful thinking, and social withdrawal (five items; e.g., “Accepting it [a situation] as a fact of life”). The items are rated along a 5-point scale, ranging from 5-point ranging from 1 (*not at all*) to 5 (*very much*).

Prior studies have shown good internal consistency for the engagement and disengagement subscales (e.g., test–retest reliability over a 2-week period ranged from  $\alpha = .71$  to .80; Cook & Heppner, 1997; Tobin et al., 1989). Cronbach’s alphas for the engagement and disengagement coping strategies for the current study were .79 and .71, respectively. The CSI has been used with diverse college samples, including Asians (e.g., Yoo & Lee, 2005) and Latinxs (e.g., Sanchez, Smith, & Adams, 2017). The construct validity was examined in three studies by means of Wherry’s approach to hierarchical factor analysis (Tobin et al., 1989). A hierarchical model with three levels was identified ( $n = 524$ ) that included eight primary factors (Problem Solving, Cognitive Restructuring, Emotional Expression, Social Support, Problem Avoidance, Wishful Thinking, Self-Criticism, and Social Withdrawal), which identified dimensions of coping found in previous empirical research and theoretical writing. Support for the constructs of problem- and emotion-focused coping hypothesized by Lazarus was obtained at the secondary level ( $n = 508$ ), and support for the constructs of approach and avoidance coping hypothesized by many theorists (e.g., Lazarus) was obtained at the tertiary level ( $n = 398$ ). The emergence of the two tertiary factors was also consistent with the subsequent findings of Scheier, Weintraub, and Carver (1986), who hypothesized that coping can be organized into two general strategies, which have been termed *engagement* and *disengagement*. The CSI subscales have demonstrated good



convergent and divergent validity with measures of self-efficacy, psychological and physical symptoms in clinical and normative samples (Tobin et al., 1984).

**Mental health.**—The five-item Mental Health Inventory (MHI-5; Ware & Sherbourne, 1992) was used to measure psychological distress: depression (three items; e.g., “In the last month, how often have you felt down and blue?”) and anxiety (two items; e.g., “In the last month, how often have you felt tense or high-strung?”). Participants responded to each item on a 6-point Likert scale (1 = *none of the time* to 6 = *all of the time*) to indicate how much they have experienced the symptoms indicated in the last 30 days. The five items were averaged after reverse coding two of the items (Items 1 and 2). High scores indicate greater psychological distress. Moderate to strong internal consistency for the MHI-5 was demonstrated in prior research ( $\alpha = .84$ ; Rumpf, Meyer, Hapke, & John, 2001). The MHI-5 has been used with Asian and Latinx populations and found to have good construct validity and reliability ( $\alpha = .77$ ; Epstein, Bang, & Botvin, 2007). Cronbach’s alpha for the MHI-5 mental health inventory for the current study was .76.

**Demographic questionnaire.**—Participants reported their age, gender, grade point average, parents’ education level, and family income. Information regarding the respondents’ immigrant status was also recorded.

### Data Analytic Strategy

*Mplus* software (Version 7.4; Muthén & Muthén, 1998–2015) was used for all of the analyses. Confirmatory factor analysis (CFA) was first used to investigate the factor structure of the Racial-Ethnic Microaggressions measure to be used in the analyses of the conceptual model. Maximum likelihood robust (MLR) estimation was used when analyzing the CFA models. As suggested by Kline (2015), model fit of the CFA was assessed with the chi-square test of model fit ( $\chi^2$ ), the comparative fit index (CFI), the Tucker-Lewis Index (TLI), the standardized root mean square residual (SRMR), and the root mean squared error of approximation (RMSEA), with its corresponding 90% confidence interval (CI). Ideally, a nonsignificant chi-square test denotes adequate fit of the model to the data. CFI and TLI values equal to or greater than .90 traditionally denote adequate model fit. SRMR values of .05 suggest good fit, and values ranging between .05 and .10 suggest acceptable fit (Hu & Bentler, 1995). RMSEA values less than or equal to .05 suggest close fit, and values ranging between .05 and .08 suggest adequate fit. Further, model fit is deemed acceptable if the 90% CI associated with the RMSEA falls below or contains a value of .05 (Browne & Cudeck, 1993).

In cases of poor model fit, modification indices (MIs) were examined in order to identify potential sources of model misspecification. MIs provide information about what may be added (e.g., a direct effect or correlation between variables) to a model in order to significantly improve the fit of the model using an estimated change in the chi-square statistic (Satorra, 1989; Sörbom, 1989). Theoretically reasonable parameters associated with a large MI value could then be evaluated as to whether they should be added to the model. MIs can also suggest model misspecification in terms of identifying poorly functioning items/variables. For example, in a CFA, large MIs associated with an item may suggest that

it should also be allowed to load on a secondary factor, indicating potential misspecification of the model or misunderstanding of the item if the intention is to model distinct but related constructs (Saris, Satorra, & Sörbom, 1987).

### Multiple-Group Path Analysis

Main analyses consisted of testing a path mediation model in a single- and multiple-group framework, in which we estimated all path coefficients simultaneously, controlling for covariates for the total sample and by gender and immigrant status, respectively. The advantage of this approach is that it allowed us to investigate the indirect effect passing through both of these mediators in a series (Taylor, MacKinnon, & Tein, 2008). We were also able to isolate the indirect effect of both mediators: engagement coping and disengagement coping. Path models were fitted using the robust Multiple Linear Regressions (MLR) for continuous variables, accounting for missing data, and heteroscedasticity and non-normality related to clustering and stratification. Indirect effects in the path model were also evaluated using bootstrap analyses with 10,000 sample draws and bias-corrected standard errors (Preacher & Hayes, 2004). Mediation is determined to be significant if the CIs obtained through bootstrapping do not include zero in their range (Shrout & Bolger, 2002) and the test of significance yields a  $p$  value equal to or less than 0.05.

Multiple-group path analysis was employed to examine and test whether differences in the structural parameters across ethnic groups were statistically significant. Testing for cross-group invariance involved first analyzing the model separately within each group (Asians and Latinxs) to ensure that the model fit the data acceptably. Once acceptable model fit was determined in each group, we compared two nested models: (a) a baseline model using the data from both groups simultaneously wherein no constraints were specified, and (b) a second model in which all paths were constrained to be invariant between the groups. Comparison of nested models employed a robust nested chi-square test (Satorra-Bentler). If imposing constraints decreased model fit significantly, then this would suggest that one or more parameters are not equivalent across groups.

## Results

Descriptive analyses (i.e., frequencies, skewness, kurtosis, mean, standard deviations, correlations) were used to check the data for normality, input errors, and outliers. No unusual occurrences were found in the data. Less than 1% of the data was missing among participants on any one variable. Three participants were dropped from the analysis for missing data on the covariates. Because such a small amount of missingness was recorded among the data, the estimates should not be biased (Allison, 2002). Pearson product-moment correlations and means and standard deviations of the main study variables are presented in Table 1.

Significantly high intercorrelations were found between several of the subscales of the racial-ethnic microaggressions measure, ranging from .80 to .85 for the REMS Inferiority, Criminality, and Work/School subscales, and from .63 to .67 for the Exoticization and Microinvalidations subscales, respectively. Thus, a CFA was conducted to test the six-factor structure of the REMS scale measure with the current participant sample. This six-factor

model has been previously validated on Asian American and Latinx American populations (Nadal, 2011). All 308 participants responded to all 45 items on the REMS.

The originally proposed six-factor model (Nadal, 2011) did not fit the sample well. Model fit information for the tested CFA models is presented in Table 2. MIs suggested significant cross loadings among several items across all of the subscales. Therefore, given that a total scale score was also validated for use with the REMS (Nadal, 2011), a CFA of the single factor structure was tested using items from the total scale score, and this model fit the data very well for the sample (see Table 2). Cronbach's alpha for the total scale score in the current study is .92 for the total sample (.92 for Asian participants and .92 for Latinx participants).

A series of ANOVAs and MANOVAs were conducted to explore the effects of demographic characteristics (ethnicity, gender, and immigrant generation) on the mean scores of the Total Racial-Ethnic Microaggressions scale and Coping Strategies subscales. With regard to the Total Racial-Ethnic Microaggressions measure, results did not show significant effects for ethnicity,  $F(1, 306) = .01, p = .89$ , gender,  $F(1, 306) = .34, p = .55$ , or immigrant generation,  $F(4, 303) = 1.13, p = .34$ . With regard to the coping strategies subscales, there were no significant mean differences based on ethnicity (Wilks'  $\lambda = .996, F[2, 305] = .54, p = .58$ ), gender (Wilks'  $\lambda = .989, F[2, 305] = 1.63, p = .19$ ), or immigrant generation (Wilks'  $\lambda = .964, F[8, 299] = 1.35, p = .21$ ). However, with regard to mental health, results revealed that there were significant effects for ethnicity,  $F(1, 305) = 10.44, p = .001$ , whereby Asian American participants reported higher psychological distress scores ( $M = 62.07, SD = 14.27$ ) compared with Latinx American participants ( $M = 67.15, SD = 13.16$ ).

### Multigroup Path Analyses

The conceptual model was analyzed using multigroup observed variable path analysis. Table 3 provides model fit information for all of the models tested. Prior to running the multigroup path analysis, the theoretical model was first fitted to the data obtained from Asian participants and from Latinx participants separately to ensure adequate model fit. The conceptual model fit very well for both samples (see Table 3). The baseline model was then estimated, in which the data for the two ethnic groups was fitted to the modified models simultaneously without imposing any model parameter constraints (i.e., parameter equalities for Asians and Latinxs). This model fit the data very well (see "Baseline model" results in Table 3). The fully constrained model was then fitted to the data in which all of the direct effects estimated in each ethnic group were constrained to be equal. This model also fit the data very well, suggesting that parameter estimates are equal across groups (see "Fully Constrained Model" Results in Table 3). Also, the chi-square difference test (using the Satorra-Bentler test) between the baseline model and the fully constrained model indicated no significant loss in fit when imposing all of the parameter constraints across ethnic groups, Satorra-Bentler  $\chi^2(8) = 10.07, p > .05$ . Thus, we retained the unconstrained model for subsequent analyses. The final model is presented in Figure 2.

As shown in Figure 2, racial-ethnic microaggressions had a positive and statistically significant direct effect on psychological distress (supporting Hypothesis 1). That is, participants who reported higher rates of racial-ethnic microaggressions reported higher

scores on psychological distress. Racial-ethnic microaggressions had a positive and statistically significant direct effect on engagement and disengagement coping strategies (supporting Hypotheses 2 and 3). Thus, participants who reported higher rates of racial-ethnic microaggressions also reported higher scores on engagement and disengagement coping strategies. Engagement coping strategies had a negative and statistically significant direct effect on psychological distress. That is, those participants who endorsed engagement coping strategies in response to racial-ethnic microaggressions reported lower rates of psychological distress. Disengagement coping strategies did not significantly predict mental health.

### Analyses of Indirect Effects

Although the data were collected at a single time point and not longitudinally, indirect effects in the observed variable path models were evaluated to help elucidate potential mediating relationships that may be further examined in subsequent longitudinal studies with this population. The temporal order of the variables in the path models, as previously described, is grounded in theory. Although the models attempt to represent the chronological relationships that would be observed with longitudinal data, causality should not be inferred from the analyses of indirect effects. Table 4 presents the statistically significant standardized indirect effects with corresponding 95% bias-corrected bootstrapped CIs. In addition, the effect size associated with the indirect effect is presented in Table 4 and may be interpreted similarly to Cohen's *d* effect size measure (Cohen, 1988). It is calculated by taking the product of the unstandardized direct effect coefficients involved in the indirect effect and dividing it by the standard deviation associated with the outcome variable (MacKinnon, 2008). Values of .2, .5, and .8 represent small, moderate, and large effect sizes, respectively. Thus, small effect sizes were associated with the statistically significant indirect effects (see Table 4). Of the hypothesized indirect effects, only the indirect effect from racial-ethnic microaggressions to psychological distress via engagement coping strategies was statistically significant (see Figure 2). That is, those participants who reported racial-ethnic microaggressions reported increased engagement coping strategies, which, in turn, were linked with lower rates of psychological distress (supporting Hypothesis 4). Thus, racial-ethnic microaggressions were significantly related to psychological distress by way of a hypothesized direct effect as well as an indirect effect through engagement coping. The indirect effect from racial-ethnic microaggressions to psychological distress through disengagement coping strategies was not statistically significant (not supporting Hypothesis 5).

### Discussion

The current study utilized the stress and coping framework to examine the role of coping strategies in the link between racial-ethnic microaggressions and mental health outcomes in an Asian American and Latinx American college sample. Up until this point, there have been no studies that have examined coping mechanisms as pathways that link racial-ethnic microaggressions to mental health. Overall, our findings make a unique contribution to the racial-ethnic microaggressions literature by providing some empirical support for the role of coping strategies in the link between racial-ethnic microaggressions and mental health.

As expected, Asian American and Latinx American participants who experienced racial-ethnic microaggressions reported higher scores on psychological distress. These findings are consistent with prior studies that showed a positive relationship between racial-ethnic microaggressions and psychological distress, including increased depression and negative affect (McCabe, 2009; Nadal et al., 2012), somatic symptoms (Ong et al., 2013), and heightened traumatic symptoms (L. Torres & Taknint, 2015). Many college students of color are faced with devoting additional energy during their college years to coping with racism, discrimination, and negative racial stereotypes (V. Torres, 2009). In fact, an important developmental task in the identity development process among college students of color is the recognition of racism and the resolution of dissonance that it creates (V. Torres & Hernandez, 2007). The experience of feeling invisible and invalidated as it relates to racial-ethnic microaggressions is quite distressing for Asian American and Latinx American college students, and can have deleterious effects on their mental health (L. Torres & Taknint, 2015) and their academic performance (Solórzano et al., 2000).

Second, our findings showed that racial-ethnic microaggressions were significantly linked with increased engagement and disengagement coping strategies among participants. This suggests that Asian American and Latinx American college students utilize a variety of mechanisms to cope with racial-ethnic microaggressions—from confronting the slight or insult, to minimizing or avoiding the microaggression altogether. However, only engagement coping strategies partially mediated the link between racial-ethnic microaggressions and mental health, whereby those Asian American and Latinx American participants who reported racial-ethnic microaggressions and also reported increased engagement coping strategies, in turn, reported less psychological distress. These findings suggest that proactive coping strategies, such as problem solving, or being able to discuss the situation with family, friends, or a therapist, may prepare Asian American and Latinx American college students to better respond to microaggressions (Nadal, Griffin, Wong, Hamit, & Rasmus 2014). Prior studies have shown that among Asian American college students, seeking help from social support systems was the primary method of coping with psychological problems (Yeh & Wang, 2000), and this was linked with lower rates of depression (Wei, Heppner, Ku, & Liao, 2010). With regard to racial-ethnic microaggressions, engaging with other students from similar cultural backgrounds provided Asian students with a sense of community and a source for coping with racial-ethnic microaggressions stressors (Houshmand et al., 2014).

Our study is the first to demonstrate a link between racial-ethnic microaggressions and coping among Latinx college students. Moreover, our findings showed that engagement coping also mediated the link between racial-ethnic microaggressions and psychological distress. Previous research has found that engagement coping strategies (e.g., problem solving) were effective at combating racial discrimination among Latinx individuals (D. L. Lee & Ahn, 2012; Villegas-Gold & Yoo, 2014). Additionally, several studies have found that engagement coping strategies are frequently used by Latinx American college students to alleviate stress, particularly acculturative stress (Mena, Padilla, & Maldonado, 1987; Vázquez & García-Vázquez, 1995). Overall, it appears that engagement coping strategies help to mitigate the psychological distress that Asian American and Latinx American college students face in response to racial-ethnic microaggressions.

Unexpectedly, disengagement coping strategies were not significantly linked to mental health among Asian American and Latinx American college students. Although disengagement coping is believed to be associated with worse mental health outcomes, studies have shown mixed results (e.g., Brittan, Toomey, Gonzales, & Dumka, 2013; Noh, Beiser, Kaspar, Hou, & Rummens, 1999; Villegas-Gold & Yoo, 2014). For example, Noh and colleagues (1999) found that using avoidance and passive acceptance when dealing with racial discrimination was linked to less symptoms of depression for Southeast Asian refugees living in Canada. Additionally, Villegas-Gold and Yoo (2014) found that the use of certain disengagement coping strategies, such as social withdrawal, wishful thinking, and self-criticism, were associated with lower perceptions of well-being in Mexican American students, but other disengagement coping strategies, such as problem avoidance, were not significantly linked to lower perceptions of well-being. Overall, the literature on coping suggests that Asian American and Latinx American college students may utilize a diverse set of coping strategies, including engagement and disengagement strategies, in a way that may or may not foster adjustment to stressors associated with racism and discrimination (Cheng, Lau, & Chan, 2014).

### Limitations and Future Directions

The results of the current study must be interpreted in the context of a few limitations. This study was correlational, and statistical analysis used to explore the relationships among racial-ethnic microaggressions, coping strategies, and mental health outcomes does not establish causation. For example, Maxwell and Cole (2007) argued that “cross-sectional approaches to longitudinal mediation can substantially over- or underestimate longitudinal effects even under the ideal conditions where mediation is complete, longitudinal parameter estimates are completely stable, and sample size is very large” (p. 40). Thus, future research on racial-ethnic microaggressions using mediational processes should include multiple waves of data in their designs and analyses, which will allow for a better understanding of how psychological processes unfold over time. Second, this study measured racial-ethnic microaggressions and did not measure other forms of discrimination, such as sexism or classism. Future studies are encouraged to examine the direct intersectionality of racial-ethnic microaggressions and other forms of oppression (e.g., sexism, classism, homophobia) experienced by Asian American and Latinx college students (Nadal et al., 2015). For example, prior studies have indicated that Asian American men and women experience different types of exoticization microaggressions, with women exoticized and treated as “damsels” who need to be rescued, and Asian American men stereotyped, emasculated, and ignored (Chua & Fujino, 1999; Liu & Wong, 2016; Nadal et al., 2015; Ong et al., 2013). Thus, an understanding of the intersection of race and gender might be important for tailoring interventions accordingly (Lewis, Mendenhall, Harwood, & Hunt, 2013; Liu & Wong, 2016).

Third, the sample for the current study consisted of mostly traditional college students of Asian and Latinx descent and their experiences may differ from nontraditional college students. Thus, future studies should examine how these contextual factors influence the choice and efficacy of coping with racial-ethnic microaggressions on mental health outcomes. Additionally, more research is needed on within-group differences in

experiences of racial-ethnic microaggressions of specific Asian American and Latinx American subgroups (e.g., Chinese, Korean, Filipinx, Puerto Rican, Dominican, Mexican), as few studies have examined their unique racialized experiences and coping processes (Concepcion, Kohatsu, & Yeh, 2013).

Finally, future research should measure other components of culture to examine their influence on the relationship between racial-ethnic microaggressions, coping strategies, and mental health, such as acculturation, individualism/collectivism, ethnic identity, and racial and gender socialization, as these may explain more unique variances in coping strategies and mental health over and beyond the racial-ethnic microaggression variables. For example, prior studies have shown that an individuals' level of acculturation and individualism/collectivism may impact the effects that engagement and disengagement coping have on individuals' mental health (Cheng et al., 2014).

### Implications

Several implications are apparent from the current study with regard to racial-ethnic microaggressions, coping, and mental health, and to mental health professionals working with Asian American and Latinx American college students. First, our findings demonstrate that there is a need for mental health professionals to be aware of the different ways in which clients cope with racial-ethnic microaggressions, as racial-ethnic microaggressions were predictive of both engagement and disengagement coping strategies for Latinx and Asian participants. It may be important for therapists to engage in conversations with clients about their experiences with racial-ethnic microaggressions, how they appraise and process the experience, and what types of coping strategies are helpful to them (Nadal, Griffin, et al., 2014). Evidence shows that people of color engage in various processes when they experience racial-ethnic microaggressions. For example, Houshmand et al. (2014) found that individuals of color engaged in a two-step process when faced with racial-ethnic microaggressions. First, they engaged in cautious deliberation about how to appraise and respond to the microaggression, and they then employed a number of coping techniques, including engagement in collective group strategies (e.g., relying on support networks), resisting and challenging oppressive ideologies (e.g., intentionally being more assertive), distancing themselves from the experience of microaggressions (e.g., focusing on work), and spiritual coping (e.g., meditating or praying).

Second, similar to prior studies that showed that engagement coping strategies were beneficial for Asian American and Latinx American college student's mental health in the face of racism and discrimination (e.g., Villegas-Gold & Yoo, 2014; Wei et al., 2010), our findings indicated that engagement coping strategies were linked to less psychological distress for Asian American and Latinx American college students' experiencing racial-ethnic microaggressions. Thus, educators and clinicians are in a unique position to assist students in fostering engagement coping strategies that actively deal with microaggressions, as this may reduce overall psychological distress.

Third, clinicians should be knowledgeable about various types of racial-ethnic microaggressions (e.g., inferiority, criminality, exoticization) and the way that microaggressions can impact counseling. Numerous studies have found that

microaggressions in counseling can have a negative impact on clients' well-being, the working alliance, and perceived counselor competence, and can impact whether clients are willing to return to counseling in the future (Constantine, 2007; Crawford, 2011; Owen et al., 2011; Shelton & Delgado-Romero, 2011). Thus, clinicians should be particularly mindful of the invisibility of microaggressions (Sue, Capodilupo, et al., 2007) and should be careful not to dismiss these events as unimportant or harmless (Nadal, Griffin, et al., 2014). It is essential for therapists to openly discuss racial and ethnic differences and encourage clients to address an incident directly if a microaggression occurs in session, as unresolved issues around microaggressions can negatively impact treatment (Houshmand et al., 2014). Additionally, it is recommended that mental health professionals undergo training to help them become aware of their own racial biases, stereotypes, and perceptions of other groups to reduce the likelihood of using microaggressions in session.

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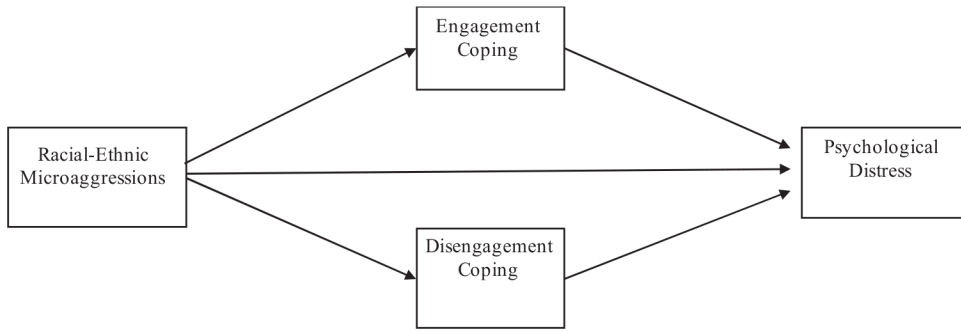
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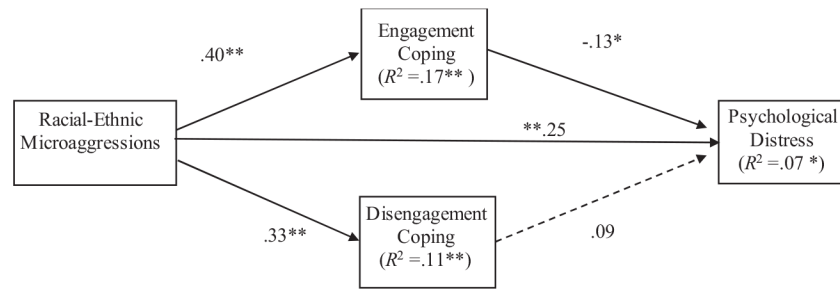
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### Public Significance Statement

This study suggests that proactive coping strategies, such as problem solving and social support, may prepare Asian American and Latinx American college students to better respond to racial-ethnic microaggressions (subtle forms of discrimination). This, in turn, may be linked to less psychological distress. It is recommended that educators and mental health practitioners engage in supportive and validating conversations with students to help them process their experience with microaggressions and determine which coping strategies are helpful to them.



**Figure 1.** Conceptual model of racial-ethnic microaggressions and psychological distress through engagement and disengagement coping.



**Figure 2.**

Unconstrained multigroup mediation path analysis of racial-ethnic microaggressions and psychological distress through engagement and disengagement coping. Gender and immigrant generation are controlled for but are not illustrated for simplicity.  $\chi^2(3) = 6.07$ ,  $p = .10$ ; Tucker-Lewis index = .92; comparative fit index = .98; root mean square error of approximation = .05 (90% confidence interval [.00, .12]); standardized root mean square residual = .02. \*  $p < .05$ . \*\*  $p < .001$ .

**Table 1**

Correlations and Means of Study Variables

Study variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Ethnicity	1												
2. Gender	-.01	1											
3. Immigrant generation	-.52**	-.13*	1										
4. Inferiority microaggressions	-.12*	-.11	-.11	1									
5. Criminality microaggressions	.06	-.17**	-.12*	.81**	1								
6. Microinvalidations microaggressions	.01	-.07	-.10	.64**	.63**	1							
7. Exoticization microaggressions	.20**	.12*	-.26**	.57**	.49**	.63**	1						
8. Environmental microaggressions	.22**	-.02	-.17**	-.30**	-.29**	-.40**	-.35**	1					
9. Work/school microaggressions	.07	-.09	-.14*	.80**	.84**	.67**	.58**	-.26**	1				
10. Total racial-ethnic microaggressions	.01	-.03	-.12*	.82**	.79**	.84**	.80**	-.56**	.84**	1			
11. Engagement coping	.13*	.07	-.20**	.37**	.33**	.39**	.37**	-.13*	.38**	.41**	1		
12. Disengagement coping	.07	-.07	-.01	.27**	.27**	.24**	.35**	-.15**	.28**	.33**	.36**	1	
13. Psychological Distress	.18**	-.09	-.14*	.28**	.30**	.27**	.12**	.07	.30**	.24**	.01	.14*	1
<i>M</i>	.53	.54	1.62	1.64	1.43	1.84	2.40	4.43	1.50	1.97	8.65	7.63	64.41
<i>SD</i>	.50	.49	.56	.99	.86	1.02	1.08	1.14	.90	.79	2.53	1.83	13.96

\*  $p < .05$ .

\*\*  $p < .01$ .



**Table 2**

Confirmatory Factor Analysis Results for Total Sample (N = 308)

Racial-ethnic microaggressions measure	$\chi^2$	<i>df</i>	TLI	CFI	RMSEA [90% CI]	SRMR
Original six-factor correlated	3,094.56 *	930	.77	.78	.08 [.08, .09]	.09
One-factor	1,616.58 *	776	.90	.92	.05 [.05, .06]	.06

*Note.* *df* = degrees of freedom; TLI = Tucker-Lewis index; CFI = comparative fit index; RMSEA = root mean square error of approximation; CI = confidence interval; SRMR = standardized root mean square residual.

\*  $p < .05$ .

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**Table 3**

## Model Fit Information for Multigroup Path Analyses in Structural Equation Modeling (SEM)

Model	$\chi^2$	df	RMSEA [90% CI]	CFI	TLI
Original model Asians	3.275	3	.024 [.000, .136]	.996	.988
Original model Latinxs	3.973	3	.047 [.000, .156]	.979	.931
Baseline model	6.071	3	.058 [.000, .124]	.975	.916
Fully constrained	16.166	11	.055 [.000, .109]	.958	.923

*Note.* Satorra-Bentler  $\chi^2(8)$  between baseline and constrained model = 10.07,  $p > .05$ . *df* = degrees of freedom; RMSEA = root mean square error of approximation; CI = confidence interval; CFI = comparative fit index; TLI = Tucker-Lewis index.

\*  $p < .05$ .

**Table 4**

Summary of Indirect Effects of Racial-Ethnic Microaggressions and Psychological Distress Through Engagement Coping and Disengagement Coping (N = 308)

Predictor	Mediator	Coefficient		95% CI		Effect size
		<i>B</i>	<i>SE</i>	Lower	Upper	
Total REMS	Engagement coping	-.052	.028	-.044	-.073	.07*
	Disengagement coping	.033	.021	-.077	.005	.04

Note. REMS = Racial-Ethnic Microaggressions score.

\*  $p < .05$ .

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