ABSTRACT

Title of Thesis: MENTAL HEALTH RISKS OF RACIAL MICROAGGRESSIONS: A MODERATED INDIRECT EFFECTS MODEL OF RACISM HYPERVIGILANCE AND ETHNIC-RACIAL SOCIALIZATION IN BLACK EMERGING ADULTS

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Racial microaggressions (RMs) are pervasive racial stressors linked to adverse mental health outcomes among Black populations (Lui & Quezada, 2019), yet limited research has examined the sociocultural mechanisms underlying these associations among heterogeneous samples of Black emerging adults. Racism-related hypervigilance (RH), characterized by heightened anticipatory monitoring and psychological preparedness for potential racial discrimination, is a promising mechanism to examine given evidence linking racism-related hypervigilance and internalizing symptoms (Himmelstein et al., 2015). The present study examined the indirect effect of RMs on internalizing symptoms (i.e., depression and anxiety) through RH. Additionally, ethnic-racial socialization (ERS) messages, including cultural socialization (CS), preparation for bias (PB), and promotion of mistrust (PM), were examined as moderators of these indirect associations. Structural equation modeling (SEM) was conducted to investigate direct, indirect, and moderated indirect effects while controlling for demographic covariates.

Results supported that RH partially accounted for the indirect effect of RMs; specifically, higher levels of RMs were associated with higher levels of RH, which in turn were associated with greater depression and anxiety symptoms. Moderated indirect effects analyses indicated that PM significantly moderated the indirect pathway linking RMs to internalizing symptoms through RH, whereas CS and PB did not significantly moderate these associations. These findings contribute to the growing literature examining sociocultural mechanisms underlying the association between RMs and mental health outcomes among Black emerging adults.

MENTAL HEALTH RISKS OF RACIAL MICROAGGRESSIONS: A MODERATED INDIRECT EFFECTS MODEL OF RACISM HYPERVIGILANCE AND ETHNIC-RACIAL SOCIALIZATION IN BLACK EMERGING ADULTS

by

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Mental Health Risks of Racial Microaggressions: A Moderated Indirect Effects Model of Racism Hypervigilance and Ethnic-Racial Socialization in Black Emerging Adults

Black populations in the United States (U.S.) are at disproportionate risk for poor mental health, including depression and anxiety symptoms (Fontanella et al., 2026). Black emerging adults are at particular risk as they face the developmentally relevant challenge of transitioning into "full adulthood" (Arnett, 2007) and simultaneously are exposed to the harms of perceived racism (Fontanella et al., 2026). Racial microaggressions (RMs), everyday subtle racial-related insults, slights, or invalidations, are one such form of perceived racism that is understudied (Torres-Harding et al., 2015). RMs are often overlooked because of their "commonplace" nature, but recent research has reliably shown its deleterious effects on mental health outcomes in Black populations (Nadal et al., 2014; Rastogi et al., 2024). Given their subtle nature, additional research on RMs is important to demonstrate their insidious nature and to identify culturally specific coping responses that influence mental health outcomes.

Racism hypervigilance (RH), defined as the monitoring of one's environment and behavioral changes in anticipation of encountering racism (Brownlow et al., 2023; Woody et al., 2022) represents a culturally specific coping response that may help explain the impact RMs has on internalizing symptoms (INT) (Himmelstein et al., 2015). Studies have linked RH to INT, finding that engagement in RH is associated with higher levels of stress, anxiety, and depressive symptoms among Black individuals in the U.S. (Himmelstein et al., 2015; Chae et al., 2021; Mekawi et al., 2022).

In addition to examining mechanisms in the relationship between RMs and INT, it is also important to acknowledge the heterogenous cultural backgrounds that exist among Black

emerging adults. Though Black populations in the U.S. are ethnically diverse, they are often homogenized by the label 'African American' in psychological research, effectively erasing the nuanced experiences of Black immigrants (Agi & Rivas-Drake, 2022). In this work, Black immigrants represent individuals whose families immigrated to the U.S. from African, Caribbean, or South American countries and are distinguished from multigenerational Black individuals, who represent individuals whose families have been in the U.S for multiple generations (Agi & Rivas-Drake, 2022; Thelamour, 2024). Acknowledging the heterogeneity within Black U.S. populations affords us the opportunity to discover potential nuances in how Black immigrants perceive and cope with racism (Volpe et al., 2022). To this end, the study of ethnic-racial socialization (ERS), "a multifaceted construct that captures how families socialize youth regarding the values, traditions, and practices associated with their ethnic-racial group" (Umana-Taylor & Hill, 2020, p. 245) as a moderator could be a viable way to discover how cultural upbringing shapes perception and responses to racial stress among Black immigrant and multigenerational emerging adults (Tyrell et al., 2024).

Overall, racism has a significant negative impact on Black emerging adults' mental health, yet little is known about how culturally specific coping and socialization practices interact to potentially influence these pathways. Accordingly, this study aims to investigate the role of RH in the link between RMs and INT; as well as to explore the moderating role of ERS within this relationship.

Theoretical Frameworks

Early theoretical models of stress posit that stress and coping is a transactional relationship whereby stress is not only influenced by external events, but by a transaction

between an individual's biopsychosocial predispositions and their environment (Folkman & Lazarus, 1986). Central to this model is the role of appraisal, a cognitive process where an individual determines whether a certain stimulus is threatening or harmful. Taken together, Folkman and Lazarus (1986) proposed the transactional model of stress and coping, a foundational stress theory that underscores the importance of appraisal in the development of coping responses and subsequent health outcomes. Clark and colleagues (1999) contextualized this model in the aftermath of the Jim Crow era and conceptualized the biopsychosocial model of racism, where racism is framed as an environmental stimulus associated with physical and psychological health outcomes based on cognitive and behavioral responses to the stimuli, or coping. Clark et al.'s (1999) biopsychosocial model laid the groundwork for scholars to investigate racism and racism-related stress and its impact on the psychological health of Black populations; however, this model does not explicitly account for heterogeneity or ethnic diversity that exists among Black people in the U.S. Expanding on Clark's model, Tyrell and colleagues (2024) proposed a multisystem model of stress and adaptation, highlighting the importance of social positioning and socialization in the experiences and appraisal of sociocultural stress.

The current study is guided by Tyrell and colleagues' (2024) multisystem model of stress and adaptation, which posits that social positioning and ethnic-racial socialization (ERS) influence how individuals perceive sociocultural stressors and, in turn, how they cope with them. The model argues that these systems (e.g., social positioning, ERS, perceived sociocultural stressors, and culturally specific coping) interact to shape mental and physical health outcomes. Consistent with this framework, multigenerational Black Americans and Black immigrants who experience racial microaggressions (RMs) may engage in racism hypervigilance (RH), which

may help explain the development of internalizing symptoms. However, the model recognizes that individuals respond to sociocultural stress through multiple coping processes that vary in their adaptiveness and cultural specificity. Therefore, the present study examines RH as one coping response that may mediate the association between RMs and internalizing symptoms, while acknowledging that other coping responses may also contribute to this relationship. Tyrell and colleagues also argue that ethnic-racial socialization (ERS) can shape how sociocultural stress is perceived, and in turn influences the coping responses that follow. In other words, ERS 'sets the stage' for how one perceives and copes with RMs and thus could exacerbate or attenuate the link between RMs and RH. Thus, positioning ERS as a moderator in the indirect relationship may demonstrate how ERS influences the way Black immigrants and Black Americans perceive and respond to RMs.

Racial Microaggressions: Prevalence & Impact

Racial microaggressions (RMs), a term first coined in the 1970s, refer to subtle, degrading slights that may appear harmless in isolation but cumulatively erode dignity, well-being, and confidence among Black individuals in the United States (Pierce et al., 1977). Decades later, Sue and colleagues (2007) popularized the construct, defining RMs as common, ambiguous, and often unintentional insults directed toward people of color that can contribute to poor health outcomes over time. Racial microaggressions are especially prevalent in contexts dominated by emerging adults, such as university classrooms (Salari et al., 2024), and are reported more frequently in workplace settings than overt racial discrimination (e.g., explicit exclusion based on race) (Salari et al., 2024). Black emerging adults are particularly vulnerable: they report experiencing RMs more frequently than their multiracial, Latinx, and Asian peers

(Lewis et al., 2021). National data further indicate that Black Americans experience RMs more consistently than both the general population and other marginalized groups, with emerging adults (ages 18–29) reporting the highest exposure (Douds & Hout, 2020). This high prevalence is concerning, as repeated exposure places Black emerging adults at increased risk for depression and anxiety symptoms (Forrest-Bank & Jensen, 2015).

Beyond prevalence, a substantial body of research documents the harmful mental health consequences of RMs. Exposure has been linked to increased depression and anxiety, lower self-esteem, reduced psychological well-being, and physical health problems (Nadal et al., 2014; Lui & Quezada, 2019). Notably, Costa et al. (2023) found that RMs were more strongly associated with poor psychological health than other forms of microaggressions (e.g., gender or sexual orientation-based), highlighting their uniquely harmful impact.

Despite consistent evidence linking RMs to internalizing symptoms, less is known about mechanisms that account for this relationship. Lui and Quezada (2019) highlighted the importance of identifying mediators to explain how RMs contribute to psychological distress. Similarly, Nadal and colleagues (2014) found only modest associations between RMs and mental health outcomes in a diverse sample of emerging adults, underscoring the need for research that examines additional processes to better explain this connection. One promising explanation is racism-related hypervigilance (RH), a culturally specific coping response that may help explain how repeated exposure to RMs contributes to internalizing symptoms among Black populations.

Racism Hypervigilance as a Linking Mechanism of Racial Microaggressions and Mental Health

In accordance with the multi-system model of stress and adaptation (Tyrell et al., 2024), racism-related hypervigilance (RH) represents one of many coping responses that ultimately determine health outcomes following a racist encounter. Given the prevalence and pervasiveness of RMs, Black individuals are subject to being consistently "on guard," heightening their state of awareness and eliciting cognitive and behavioral modifications that keep them on edge or 'ahead' of encountering racism as a method of coping (Hudson et al., 2021). Extant literature suggests that while RH may serve an adaptive purpose in protecting individuals from harm, sustained RH is associated with increased psychological distress over time, underscoring its role as both a coping strategy and a potential mechanism of stress-related harm (Brownlow et al., 2023).

Hudson and colleagues (2021) qualitatively investigated the experiences of middle-class Black men (M_{age}= 39) in St. Louis and found one of the major themes that emerged was 'vigilance against racism' (i.e., RH). Study participants described their experiences of RMs as more pervasive than overt forms of racism (e.g., being called racial slurs) because of its ambiguous nature (e.g., "it lingers") and explained that the covert nature of RMs led to them being more attentive (e.g., "like a dog, your ears are up"). These findings demonstrated the psychological impact RMs can have in daily life of Black adults'; however, their sample was limited to the perspective of middle-class adult Black men, limiting our knowledge of RH in a more realistically heterogenous sample of Black people in the U.S. as well in a younger sample of emerging adults.

Recent research has identified RH as a key mechanism in the relationship between racial discrimination and psychological health in diverse samples. Himmelstein et al. (2015) found RH to be a significant mediator in an examination of racial discrimination and stress, confirming the deleterious impact of everyday discrimination and underscoring the importance of examining RH as a key mechanism that explains this relationship. In a review of extant research, Woody et al. (2022) summarizes the nuanced role RH plays during experiences of racism, including RMs. Their review outlines how RMs contribute to the development of mood concerns and depression across Black youth and adult populations and describes the varied ways vigilance may function as a mechanism connecting racial stress to later depressive outcomes. Although this review thoroughly synthesizes the literature on racism related threats, RH, and depression among racially diverse youth and adults, the authors highlight a key limitation being the lack of scholarship concerning the differences that exist within racial groups. They acknowledge that the racial groups included in this review are not monolithic, and thus additional work is needed to parse apart within-group differences.

The Protective Function of Ethnic Racial Socialization

Ethnic-racial socialization (ERS), the process through which children learn about the beliefs, attitudes, and values of their ethnic-racial group is a multifaceted construct that plays a central role in the adjustment of diverse youth (Umana-Taylor & Hill, 2020). As such, ERS may be a cultural strength or vulnerability that is implicated in the pathway from stress exposure (i.e., RMs) to adaptation (i.e., internalizing symptoms) (Tyrell et al., 2024). Specifically, socialization messages may inform the way youth choose to cope with stress and as a result, they may experience downstream mental health consequences. To this end, little is known about how

cultural processes such as ERS moderate the association between sociocultural stress and adaptation via coping. Thus, the current work aims to address this gap by examining ERS as a moderator of the indirect relationship between RMs, RH, and internalizing symptoms.

Ethnic-racial socialization (ERS) may also be a viable way to capture differences between Black immigrant and multigenerational individuals. Recent research has noted that Black immigrant parents tend to engage in ERS practices that promote separation from their multigenerational counterparts, suggesting that they may prioritize their ethnic identity (e.g., country of origin) alongside, or over, a broader Black racial identity (Thelamour & Mwangi, 2024). As such, it could be that ERS messages significantly differ between these groups and differentially influence coping responses in the event of racial stress.

Ethnic racial socialization is comprised of four dimensions: cultural socialization (CS) (i.e., instilling cultural pride and knowledge), egalitarianism (i.e., emphasizing equality across groups), preparation for bias (PB) (i.e., preparing youth to anticipate and cope with discrimination), and promotion of mistrust (PM) (i.e., encouraging caution or wariness toward other groups). The most studied dimensions in the context of youth adjustment are CS, PB, and PM; however, additional work is needed to examine how these socialization messages potentially shape coping responses. Further, socialization research is predominantly conducted among adolescent samples; as such, it is important to study ERS in the context of emerging adulthood to examine whether effects of ERS persist as these young samples enter emerging adulthood (Saleem et al., 2023).

Cultural Socialization

A review of ERS revealed overwhelming evidence of cultural socialization (CS), the process of instilling ethnic cultural values and pride**,** being a protective factor of youths' adjustment through its positive associations with outcomes such as identity development, self-esteem, and psychological well-being (Umana-Taylor & Hill, 2020). Moreover, Gibson and colleagues (2022) identified CS as a moderator that protects against the negative effects of racism. Notably, they highlighted the cultural diversity within their sample and reinforced the importance of investigating how ethnic groups may experience racism differently. While these findings demonstrate the protective nature of CS against racial stress, they do not consider how CS might shape coping responses to racial stress. Thus, the current work adds to this growing body of literature by examining CS as a moderator of the relationship between racial stress (i.e., RMs) and coping (i.e., RH).

Preparation for Bias

Preparation for bias (PB) refers to a socialization practice in which parents seek to prepare their youth for encountering race-based discrimination and equip them with strategies to cope with these experiences. According to a scoping review, findings regarding the benefits of PB for youths' adjustment are mixed, with some studies supporting its protective role in warm or cohesive family environments and others linking it to poorer psychological outcomes in which family environment (i.e., mother-adolescent relationship) was less supportive (Umaña-Taylor & Hill, 2020). These findings suggest that PB is context-dependent and therefore may be insufficient alone in shaping psychosocial outcomes (Metzger et al., 2024). Therefore, it could be that rather than moderating the relationship between racism and mental health outcomes, PB may

be better implicated in the development of specific coping responses such as racism-related hypervigilance (RH).

Promotion of Mistrust

Promotion of mistrust (PM) refers to a socialization practice in which parents caution their children to be weary of other ethnic-racial groups with no mention of coping (Umana-Taylor & Hill. 2020). Although limited, research on PM has shown it is linked to negative mental health outcomes such as depression. Conceptually, PM is linked to negative outcomes because its focus is on negative messages concerning other groups. This messaging does little to empower youth, rather, it might foster negative intergroup relations and isolation. Promotion of mistrust (PM) has the potential to set the stage for maladaptive or adaptive coping such as RH (Tyrell et al., 2024), but there are no studies to date that investigate this relationship. Overall, these ERS dimensions (CS, PB, and PM) are distinct socialization practices that have been shown to be associated with youth adjustment; however, they have yet to be examined as moderators of the relationship between racism exposure and coping responses.

Limitations of Existing Research

While current research has reliably shown the impact RMs have on mental health, findings on the mechanistic role RH plays remain unclear. ERS dimensions are often studied as predictors of youth adjustment, but in accordance with the multisystem model (Tyrell et al., 2024), it is important to investigate ERS dimensions as predictors of coping responses. Given that ERS functions to instill cultural pride, prepare for race-based discrimination, and warn

against other racial-ethnic groups, these messages orient youth in ways that ‘set up’ how they might respond to racism.

Next, across studies concerning RMs, the label ‘African American’ or ‘Black’ are used as a monolith, which obscures the heterogeneity of Black experiences in the United States (Agi & Rivas-Drake, 2021; Volpe et al., 2022). Though several publications have examined the prevalence of RMs among ‘African Americans’, no known studies have investigated within-group differences under the label ‘African American.’ This leaves a gap in our knowledge of the nuanced experiences of immigrant-origin individuals, including prevalence of RMs and their impact on coping and mental health outcomes. Another gap this work seeks to address is the lack of ERS research in the context of emerging adulthood. Black emerging adults face the dual challenge of navigating the transition into "full adulthood" (Arnett, 2007) while contending with race-based discriminatory experiences, such as RMs. However, little is known about the role of ERS in shaping how they respond to racial stressors, particularly daily interpersonal forms like RMs. To date, only one study has examined the effects of ERS in Black emerging adults, and while it focuses on mental health outcomes such as anxiety, it does not explore its influence on coping responses (Saleem et al., 2023).

Finally, it is important to investigate these mechanisms as they relate to internalizing symptoms (i.e., anxiety and depression) in Black emerging adults given that they experience RMs at higher rates than their ethnically diverse counterparts (e.g., Asian American, Latinx, etc.) (Lewis et al., 2021). Moreover, depression and anxiety symptoms have become increasingly prevalent since the COVID-19 pandemic, disproportionately affecting Black individuals who are historically underserved in mental health support and treatment (Fisher et al., 2021). The post-

COVID climate coupled with the recent legislative attacks on immigrant safety and diversity, equity, and inclusion (DEI) programming put immigrant-origin and multigenerational Black emerging adults in the U.S. at heightened risk for experiencing RMs and subsequent depressive and anxiety symptoms.

Taken together, these limitations point to the need for research that captures the mechanisms through which RMs influence the mental health of Black individuals in the U.S.; accounting for ethnic differences that may shape how they perceive and cope with these experiences. Racism hypervigilance (RH) is an important mechanism to consider in this relationship, as it is a culturally specific coping process that is particularly relevant for understanding how this harmful association might be mitigated. Finally, focusing on emerging adulthood expands upon existing scholarship, which has primarily examined CS among adolescent and youth populations.

Current Study

In light of these limitations, the purpose of the current study is to investigate the relationships between racial microaggressions (RMs), racism hypervigilance (RH), and internalizing symptoms (i.e., anxiety and depressive symptoms) in a cross-sectional sample of Black immigrant and multigenerational emerging adults. Additionally, the current study will examine ERS dimensions (i.e., preparation for bias, cultural socialization, and promotion of mistrust) as a moderator of the indirect relationship. In examining ERS as a moderator, I argue that distinct values, norms, and cultural beliefs are reflected in ERS messages and may illuminate cultural and ethnic differences between multigenerational Black and immigrant-origin Black

individuals (Thelamour et al., 2021). Accordingly, ERS messages may differentially shape how RMs are perceived and subsequently responded to through coping (i.e., RH).

To this end, the current study aims to 1) examine the association between RMs and internalizing symptoms (i.e., anxiety and depression); 2) examine the indirect effect of RMs on internalizing symptoms through RH; 3) examine ERS dimensions (i.e., cultural socialization, preparation for bias, promotion of mistrust) as moderators in the indirect relationship between RMs, RH, and internalizing symptoms, and 4) explore whether differences exist in these associations between Black immigrant-origin and Black multigenerational emerging adults in the sample.

Consistent with extant research demonstrating the link between RMs and internalizing symptoms (Luiz & Quezada, 2019), I first hypothesize that RMs will be positively associated with internalizing symptoms, such that higher levels of RMs will be associated with higher levels of anxiety and depressive symptoms. Second, given that RH is only one of many possible coping responses, I hypothesize that RH will partially explain the relationship between RMs and internalizing symptoms (Himmelstein et al., 2015), such that greater levels of RMs will be associated with greater RH, which will in turn be associated with greater levels of anxiety and depressive symptoms. Third, I hypothesize that ERS messages will significantly moderate the indirect relationship by affecting the a-path linking RMs to RH. Consistent with extant literature identifying CS as a protective factor, I hypothesize that higher levels of CS will weaken the relationship between RMs and RH. Concerning PB and PM, no a priori hypotheses were made due to mixed findings regarding whether PB and PM function as protective or risk factors (Reynolds & Gonzales-Backen, 2017). Finally, I will explore whether there are significant group

differences between immigrant-origin and multigenerational Black emerging adults in the indirect and moderated indirect effect models.

Method

Participants

A national sample of Black multigenerational and immigrant-origin emerging adults between the ages 18 and 29 years old were recruited between 2024 and 2025. Participants were excluded if they were over the age of 29 (n =189) or if they failed a speeding check, which was defined as completing the survey in under a third of the median time (n = 31). The final sample consisted of 1,876 emerging adults (M_{age} =23.8, SD= 3.2) from across the U.S. who identified as Black or African American. Among the participants, 60.6% identified as female, 38.4% identified as male, 0.3% identified as transgender women (male to female), and 0.4% identified as transgender men (female to male). Regarding socioeconomic status, 31.6% reported a household income under $35,000, 23.7% reported a household income between $35,000 and $49,999, 14.9% reported a household income between $50,000 and $74,999, 11.1% reported a household income between $75,000 and $99,999, 4.9% reported a household income between $100,000 and $149,000, 2.1% reported a household income of $150,000 or above, and 3% of participants preferred not to report their household income.

Procedures

The current study will utilize cross-sectional data collected as part of a longitudinal research study examining the relationships between sociocultural factors and internalizing symptoms among Black emerging adults. For data collection, Qualtrics aggregates multiple

trusted online panel resources to distribute the survey to potential participants. Participants are then able to view and select surveys for which they qualify. Participants were eligible to participate if they were at least 18 years old, resided in the U.S., and self-identified as Black or African American. Study procedures were approved by the Institutional Review Board at the University of Maryland. Participants received compensation upon completion of each survey and were provided with a list of mental health resources.

Measures

Inventory of Microaggressions against Black Individuals (IMABI). The IMABI (Mercer, Ziegler-Hill, Wallace, & Hayes, 2011) is a 14-iem self-report measure used to assess the frequency and impact of RMs against Black individuals. Specifically, participants reported their experience of RMs over the past year on a 5-point Likert scale *(i.e., 0= This has never happened to me, 1=This event happened but I was not upset to 5= This event happened to me and I was extremely upset)*. For the present study, items were averaged to obtain a total scale score. Higher scores indicate higher frequency and impact of RMs. Sample items include "when successful, I felt like people were surprised that someone of my racial/ethnic background could succeed." and "someone told me that I am not like other people of my racial/ethnic background." The IMABI has been found to be a reliable and valid measure of RMs (Mercer et al., 2011) and Cronbach's alpha for the current study was 0.94.

Racism-related Hypervigilance. The Heightened Vigilance scale (HVS; Hicken et al., 2013; Himmelstein et al., 2015) is a 6-item self-report measure used to assess RH behaviors (i.e., an individual's level of vigilance and anticipation of threat in their environment related to racism). It was originally developed for the 1995 Detroit Area Study but has been used in

subsequent studies assessing the impact of hypervigilance on health outcomes (Himmelstein et al., 2015). For the present study, participants were asked to rate how often over the last year they engage in RH behaviors in response to everyday racial stressors. Sample items include "try to prepare for possible insults before leaving home" and "think in advance about the problems you are likely to experience." The HVS has been found to be a valid and reliable measure of RH (Himmelstein et al., 2015) and Cronbach's alpha for the current study was 0.89.

Ethnic Racial Socialization. *Cultural socialization* will be measured using the Familial Ethnic Socialization measure (FESM) (Umaña-Taylor, Bhanot, & Shin, 2006), a 12-item self-report measure originally developed to assess the degree to which respondents perceived that their families instilled their ethnic backgrounds both intentionally and unintentionally. For the present study, participants responded to items such as "my family encourages me to respect the cultural values and beliefs of our ethnic/cultural background" and "my family felt a strong attachment to our ethnic/cultural background". Items are rated on a 5-point Likert scale from *1=not at all to 5=very much.* The FESM has obtained alpha coefficients ranging from 0.92 to 0.94 among ethnically diverse samples (Umana-Taylor, Bhanot, & Shin, 2006). Cronbach's alpha for the current study was 0.93.

Preparation for Bias (PB) and Promotion of Mistrust (PM) will each be represented by subscales in the Parental Ethnic Racial Socialization (PERS) measure (Hughes and Johnson, 2001; Umana-Taylor, 2001). The PERS is a self-report measure developed to assess the degree to which respondents perceive that their parents prepared them for race-based discrimination (8 items, e.g., "talked to you about unfair treatment that occurs due to race/ethnicity") and promoted mistrust of other ethnic-racial groups (3 items; e.g., "told you to avoid another racial/ethnic

group because of its members' prejudice against your racial/ethnic group"). Prior research has demonstrated good reliability and construct validity for these subscales across diverse racial-ethnic minority samples (Hughes & Johnson, 2001; Hughes et al., 2006). Cronbach's alpha for the current study for each subscale was .92 and .89, respectively. Items are rated on a 5-point Likert scale from 1= *never* to 5= *very often.* Cronbach's alpha for the current study for each subscale was 0.92 and 0.89 respectively.

Internalizing Symptoms. Internalizing symptoms were measured using the depression and anxiety subscales of the Depression, Anxiety, and Stress Scale- 21 (DASS-21, Lovibond & Lovibond, 1995). The DASS-21 is a 21-item self-report scale used to assess symptoms of depression, anxiety, and stress (Lovibond & Lovibond, 1995). For the present study, participants were asked to rate how much each statement applied to them over the past week on a 4-point Likert scale *(0=Did not apply to me at all)* to *(3=Applied to me very much or most of the time).* Example items from the depression and anxiety subscales include, "I couldn't seem to experience any positive feeling at all" and "I was worried about situations in which I might panic and make a fool of myself" respectively. Numerous studies have indicated the DASS-21 has high quality evidence for construct validity (Lee et al., 2019). Cronbach's alpha for the current study was 0.90 for the depression subscale and 0.87 for the anxiety subscale.

Data Analytic Plan

In recognition of the inherent limitations of mediation analyses using cross-sectional data, the current study approaches analyses of indirect effects from an atemporal mediation perspective (Winer et al., 2016). Specifically, the aim of this study is not to establish temporal causation; rather, it is to examine whether racism-related hypervigilance (RH) is uniquely

atemporally associated with internalizing symptoms (i.e., depression and anxiety). This approach is theoretically grounded in frameworks conceptualizing racial microaggressions (RMs) as stressors that Black populations navigate through culturally specific coping processes, which may subsequently relate to mental health outcomes (Clark et al., 1999; Tyrell et al., 2024). Longitudinal investigations of racism-related hypervigilance in the context of RMs among heterogeneous samples of Black emerging adults remain absent from extant research; thus, the current work may help lay the groundwork for future longitudinal research examining temporal associations.

Preliminary checks identified no violations of linearity. Assumptions for regression analysis were evaluated and met for each model. Linearity and homoscedasticity were assessed via visual inspection of scatterplots, including plots of standardized residuals against standardized predicted values. The normality of residuals was evaluated through visual inspection of residual histograms. Multicollinearity among independent variables was examined using correlations between predictors.

Primary analyses were conducted using structural equation modeling (SEM) within Mplus 9.0 (Muthén & Muthén, 2017) using full information maximum likelihood. Analyses were conducted in four steps, with depression and anxiety estimated in separate models. First, an indirect effects model was estimated in the full sample to examine the direct and indirect associations among RMs, RH, and internalizing symptoms. Second, multigroup indirect effect analyses were conducted to assess whether the indirect pathways differed between immigrant-origin and multigenerational groups. Third, moderated indirect effect models were estimated in the full sample by including ERS dimensions (i.e., cultural socialization, preparation for bias,

and promotion of mistrust) as moderators, examined separately, to test whether ERS altered the association between RMs and RH (a-path). Significant interactions were probed using simple slope analyses, examining the association between RMs and RH at low (−1 SD), mean, and high (+1 SD) levels of each significant ERS dimension. Finally, multigroup moderated indirect effect analyses were conducted to evaluate whether these conditional indirect effects differed across groups.

Results

The results are presented in two steps. First, descriptive information and zero-order correlations are presented for all study variables. Second, results of the main analyses used to test the indirect relationships and moderated indirect effect models are reported.

Descriptive Analyses and Correlational Analyses

Descriptive statistics for the final analytic sample are presented in Table 1. The sample included multigenerational Black participants (n = 1,563) and immigrant-origin Black participants (n = 298). Immigrant-origin participants reported higher levels of racial microaggressions (M = 2.69, SD = 0.99) compared to multigenerational participants (M = 2.45, SD = 1.00). Similarly, immigrant-origin participants reported greater racism hypervigilance (M = 3.11, SD = 1.02) relative to multigenerational participants (M = 2.89, SD = 1.07). For internalizing symptoms, immigrant-origin participants also endorsed higher anxiety symptoms (M = 16.50, SD = 10.23) than multigenerational participants (M = 14.72, SD = 10.78). A similar pattern emerged for depressive symptoms, with immigrant-origin participants reporting higher depression (M = 18.45, SD = 11.21) compared to multigenerational participants (M = 15.69, SD

= 11.53). In terms of ERS messages, both groups reported similar levels of all three domains included in the study. For cultural socialization, preparation for bias, and promotion of mistrust, both groups reported approximately *M*= 3.40, *SD*= 1.00; *M*= 3.00, *SD*=1.00, and *M*= 2.70, *SD*= 1.00 respectively.

Bivariate correlational analyses were conducted among key study variables for the entire sample (Table 4). Racial microaggressions were moderately and positively correlated with racism hypervigilance ($r = .50$, $p < .001$), anxiety ($r = .46$, $p < .001$), and depression ($r = .41$, $p < .001$). Similarly, racism hypervigilance was positively associated with anxiety ($r = .45$, $p < .001$) and depression ($r = .45$, $p < .001$). Cultural socialization was positively associated with racial microaggressions ($r = .20$, $p < .001$), racism hypervigilance ($r = .20$, $p < .001$), and preparation for bias ($r = .53$, $p < .001$). It was not significantly related to anxiety or depression. Preparation for bias was positively associated with racial microaggressions ($r = .39$, $p < .001$), racism hypervigilance ($r = .33$, $p < .001$), anxiety ($r = .22$, $p < .001$), and depression ($r = .22$, $p < .001$). It was also strongly correlated with promotion of mistrust ($r = .62$, $p < .001$). Promotion of mistrust was positively associated with racial microaggressions ($r = .43$, $p < .001$), racism hypervigilance ($r = .29$, $p < .001$), anxiety ($r= .30$, $p < .001$), and depression ($r = .27$, $p < .001$), and was moderately associated with cultural socialization ($r = .32$, $p < .001$).

Aims 1 & 2: Associations between RMs, RH, and internalizing symptoms

Two structural equation models were conducted to examine racism-related hypervigilance (RH) as a mediator of the association between racial microaggressions (RMs) and internalizing symptoms (i.e., anxiety and depression), controlling for gender, age, and socioeconomic status (SES). Results of both models are presented in Table 2 and Figure 1.

In the anxiety model, racial microaggressions significantly predicted greater racism hypervigilance, $b = 0.53$, $SE = 0.02$, $p < .001$. Greater racism hypervigilance was associated with higher anxiety symptoms, $b = 2.97$, $SE = 0.26$, $p < .001$. The indirect effect of RMs on anxiety through RH was significant, $b = 1.58$, $SE = 0.15$, $p < .001$. Racial microaggressions retained a significant direct effect on anxiety symptoms after controlling for RH, $b = 3.38$, $SE = 0.28$, $p < .001$, indicating a partial indirect effect. The model accounted for 27.8% of the variance in anxiety symptoms. The depression model yielded similar results: racial microaggressions significantly predicted greater racism hypervigilance, $b = 0.53$, $SE = 0.02$, $p < .001$, while greater racism hypervigilance was associated with higher depressive symptoms, $b = 3.43$ $SE = 0.285$, $p < .001$. The indirect effect of RMs on depressive symptoms through RH was significant, $b = 1.82$, $SE = 0.17$, $p < .001$. Racial microaggressions also retained a significant direct effect on depressive symptoms, $b = 3.04$, $SE = 0.31$, $p < .001$, again supporting a partial indirect effect. The model accounted for 30.8% of the variance in depressive symptoms. These findings support the hypothesis that racism hypervigilance partially accounts for the relationship between racial microaggressions and anxiety and depression.

Multigroup indirect effect analyses

Multigroup indirect effect analyses were conducted to examine whether the indirect effect of racial microaggressions (RMs) on anxiety and depression through racism hypervigilance (RH) differed across multigenerational and immigrant-origin Black emerging adults (See Table 2, Figure 2). For anxiety, results indicated significant indirect effects for both multigenerational ($b = 1.62$, $p < .001$) and immigrant-origin participants ($b = 1.26$, $p < .001$). However, the indirect effects did not significantly differ between groups, $b = 0.37$, $p = .30$, nor

did the direct effects, $b = 0.50$, $p = .48$. These findings suggest that RH similarly accounts for the relationship between RMs and anxiety across both groups. For depression, significant indirect effects were also observed for both multigenerational ($b = 1.77$, $p < .001$) and immigrant-origin participants ($b = 1.84$, $p < .001$), with no significant between-group differences in the indirect effects, $b = -0.07$, $p = .87$. These findings did not support the hypothesis that a significant difference would emerge between the two groups. However, a significant group difference emerged for the direct effect of RMs on depression, $b = 2.03$, $p = .014$, 95% CI [.37, 3.67]. Specifically, the direct effect of RMs on depression was significant among multigenerational participants ($b = 3.36$, $p < .001$), but nonsignificant among immigrant-origin participants ($b = 1.33$, $p = .076$). These findings suggest that RH largely accounted for the association between RMs and depression among immigrant-origin Black emerging adults, whereas among multigenerational Black emerging adults, RMs retained a substantial direct association with depression beyond the effects accounted for by RH.

Aim 3: Full Sample Moderated Indirect Effects

Moderated indirect effects models were tested to examine whether ERS dimensions (i.e., cultural socialization, preparation for bias, and promotion of mistrust) moderated the indirect effect of racial microaggressions (RMs) on internalizing symptoms through racism hypervigilance (RH) (Table 3, Figure 3A). Model fit was good for both anxiety ($\chi^2(2) = 22.64$, CFI = .982, TLI = .885, RMSEA = .074, SRMR = .021) and depression ($\chi^2(2) = 14.14$, CFI = .989, TLI = .928, RMSEA = .057, SRMR = .017). Of the three ethnic-racial socialization (ERS) dimensions examined, only promotion of mistrust (PM) significantly moderated the association between racial microaggressions (RMs) and racism-related hypervigilance (RH) for both anxiety

($b = -0.05$, $p = .016$) and depression ($b = -0.05$, $p = .017$). Neither cultural socialization (CS) nor preparation for bias (PB) significantly moderated the a-path for either outcome. These findings did not support the initial hypothesis that CS would emerge as a significant moderator, but did provide evidence for PM. Examination of conditional indirect effects (−1 SD, mean, +1 SD) indicated a consistent pattern across both outcomes, such that the indirect effect of racial microaggressions on internalizing symptoms via racism hypervigilance weakened as levels of PM increased. For anxiety, the indirect effect of racial microaggressions via racism hypervigilance decreased from low PM ($b = 1.62$, $SE = 0.172$, $p < .001$), to mean PM (b = 1.45, $SE = 0.15$, $p < .001$), to high PM ($b = 1.28$, $SE = 0.15$, $p < .001$). For depressive symptoms, the same pattern emerged, with the indirect effect decreasing from low PM ($b = 1.86$, $SE = 0.19$, $p < .001$), to mean PM ($b = 1.67$, SE = 0.17, $p < .001$), to high PM ($b = 1.48$, $SE = 0.17$, $p < .001$). In other words, higher PM was associated with a reduced strength of the indirect pathway from racial microaggressions to both anxiety and depression through racism hypervigilance.

Aim 4: Multi-group moderated Indirect Effects Analyses

A multi-group moderated indirect effects model was estimated to examine whether PM moderates the indirect effect of racial microaggressions (RMS) on anxiety and depression through racism hypervigilance (RH) across multigenerational and immigrant-origin participants (Figure 3B, Figure 3C). Model fit was acceptable for anxiety, $\chi^2(4) = 30.07$, CFI = .977, TLI = .853, RMSEA = .083, SRMR = .025 and depression $\chi^2(4) = 18.76$, CFI = .986, TLI = 912, RMSEA = .063, SRMR = .020. In the anxiety model, among multigenerational Black participants, the RMs × PM interaction significantly predicted racism hypervigilance, $b = -0.057$, SE = 0.022, $p = .011$, indicating that PM buffered the association between racial

microaggressions and hypervigilance. As such, the indirect effect of RMs on anxiety via RH decreased from low PM (b = 1.69, SE = 0.19, p < .001), to mean PM (b = 1.49, SE = 0.17, p < .001), to high PM (b = 1.30, SE = 0.17, p < .001). Among immigrant-origin participants, the interaction between RMs and PM was not significant, b = −0.004, SE = 0.045, p = .931, indicating no moderation of the RMS–RH link by PM. In the depression model, among multigenerational Black participants, the RMs × PM interaction significantly predicted racism hypervigilance, b = −0.056, SE = 0.022, p = .012, indicating that PM buffered the association between racial microaggressions and hypervigilance. As such, the indirect effect of RMs on depressive symptoms via RH decreased from low PM (b = 1.84, SE = 0.22, p < .001), to mean PM (b = 1.63, SE = 0.18, p < .001), to high PM (b = 1.41, SE = 0.19, p < .001). Among immigrant-origin participants, the RMs × PM interaction was not significant, b = −0.004, SE = 0.045, p = .92, indicating no moderation of the RMs–RH link by PM. Conditional indirect effects were relatively stable across levels of PM (low PM: b = 1.74, SE = 0.42, p < .001; mean PM: b = 1.72, SE = 0.36, p < .001; high PM: b = 1.70, SE = 0.41, p < .001). Group comparisons of the conditional indirect effects indicated that differences between multigenerational and immigrant-origin participants were not statistically significant at low, mean, or high levels of PM (all ps > .20) for both depression and anxiety, suggesting that the overall moderated indirect effect pattern did not significantly differ across groups. However, examination of the within-group effects indicated that PM significantly moderated the association between racial microaggressions and hypervigilance among multigenerational Black participants, whereas this interaction was not statistically significant among immigrant-origin participants. Thus, although the strength of the indirect effects did not significantly differ between groups, the pattern of moderation suggests

that PM may play a more salient role in shaping coping processes among multigenerational individuals.

Discussion

Racial microaggressions (RMs) are pervasive sociocultural stressors that have been consistently linked to adverse mental health outcomes among Black adults (Lewis et al., 2021; Nadal et al., 2014). This association reflects a broader public health concern, as Black emerging adults may be at elevated risk for depression and anxiety due to the cumulative burden of encountering racism during a critical developmental period characterized by identity exploration, increased independence, and shifting social contexts (Arnett, 2007; Fontanella et al., 2026). Despite this risk, Black populations in the United States are often treated as a homogeneous group in psychological research, with limited attention given to within-group ethnic and cultural differences that may shape exposure and responses to racial stressors (Gibson et al., 2021). Thus, examining ethnic-racial socialization (ERS) messages that influence how Black young adults perceive and cope with sociocultural stress (i.e., microaggressions) may therefore provide a meaningful framework for understanding these within-group differences. Accordingly, the present study investigated pathways linking RMs to mental health outcomes through a culturally specific lens by examining racism hypervigilance and ethnic-racial socialization (ERS) as factors associated with internalizing symptoms. Specifically, this study explored whether racial microaggressions had an indirect effect on depression and anxiety symptoms through racism hypervigilance, and whether ERS messages contributed to a clearer understanding of the nuanced and heterogeneous experiences of Black emerging adults in the United States.

Indirect Effects of Racial Microaggressions on Internalizing Symptoms Across Groups

Consistent with extant research (Lui & Quezada, 2019), the current study found that racial microaggressions (RMs) were significantly associated with both depression and anxiety symptoms among Black emerging adults. Further, this relationship was partially accounted for by racism hypervigilance (RH), such that RMs exerted indirect effects on both depression and anxiety through RH. Conceptually, these findings underscore the pervasive psychological impact of exposure to microaggressions. Prior research suggests that frequent exposure to microaggressions and other forms of racism may elicit coping responses aimed at anticipating and preparing for future discriminatory encounters in an effort to avoid being caught off guard or psychologically harmed (Hudson et al., 2021). From this perspective, RH may function as a culturally specific coping response to chronic and often uncontrollable sociocultural stressors (Brownlow et al. 2023; Tyrell et al., 2024). This process may be particularly salient during emerging adulthood, a developmental period characterized by increasing exposure to novel academic, workplace, and interpersonal contexts in which racial stressors may occur. In an effort to maintain a sense of psychological safety, predictability, or control within these new environments, Black emerging adults may engage in RH through behaviors such as situational avoidance, rumination, and mental preparation for future racist encounters. Although these responses may initially serve a protective function, persistently engaging in anticipatory monitoring may impose substantial cognitive and emotional burden, ultimately contributing to heightened distress, emotional exhaustion, and vulnerability to internalizing symptoms (Brownlow et al., 2023).

Relatedly, consistent with cognitive-behavioral models of depression and anxiety, persistent anticipation of racial microaggressions may influence behavioral patterns in ways that reduce opportunities for positive reinforcement and adaptive engagement, thereby contributing to a self-perpetuating cycle of psychological distress. Specifically, Black emerging adults who frequently anticipate microaggressions may begin to avoid environments in which they are expected to occur, withdraw from potentially pleasurable or socially supportive experiences, or remain in a heightened state of worry and anxious arousal while navigating everyday interactions. Over time, these patterns may contribute to low mood, emotional exhaustion, social disengagement, and other related internalizing symptoms that may ultimately lead to distress. As such, RH may represent an important target for culturally responsive clinical and community-based interventions aimed at reducing internalizing symptoms among Black emerging adults.

In terms of group differences, the indirect effect of RMs on depression and anxiety through RH did not significantly differ between immigrant-origin and multigenerational Black emerging adults, suggesting that the psychological process linking racial microaggressions to internalizing symptoms through RH may operate similarly across groups. Although this finding contrasts prior literature suggesting that Black individuals from different ethnic and cultural backgrounds may differ in their perceptions of and responses to racial stressors (Gibson et al., 2021, Jacob et al., 2023**)**, it may indicate that experiences of racial microaggressions and the associated use of racism hypervigilance as a coping response are relatively shared experiences among Black emerging adults in the United States. This may be particularly salient during emerging adulthood, when individuals are increasingly exposed to novel interpersonal contexts and become privy to how they are racialized similarly regardless of ethnic background

(Thelamour & Mwangi, 2024). As such, the present findings extend existing research by suggesting that, despite important within-group heterogeneity across the Black diaspora, immigrant-origin and multigenerational Black emerging adults may experience anti-Black racialization in ways that produce similar psychological responses to racial stress. In this sense, shared exposure to racialized treatment may contribute to comparable patterns of hypervigilance and internalizing symptoms across groups despite meaningful cultural differences.

Although no significant group differences emerged in the overall indirect effects models, a meaningful divergence emerged in the direct association between RMs and depression. Specifically, the association between RMs and depression in the immigrant-origin group was largely explained by RH, whereas among the multigenerational group, RH only partially accounted for this relationship. These findings suggest that the mechanisms underlying depressive symptoms following exposure to microaggressions may differ across groups. Multigenerational Black emerging adults, whose families have longer histories within the United States, may have a broader repertoire of coping strategies to draw upon in the face of anti-Black racism (Jacob et al., 2023). In contrast, immigrant-origin individuals may rely more heavily on racism hypervigilance as a primary coping response to racial stress, particularly as they navigate both the broader U.S. racial landscape and novel interpersonal environments characteristic of emerging adulthood. As “newcomers” to the racial dynamics of the U.S. (Thelamour & Mwangi, 2024), immigrant-origin Black emerging adults may be less accustomed to the subtle and pervasive nature of racial microaggressions and thus may be more vigilant as they encounter them. This pattern highlights the importance of considering how exposure to RMs may elicit different coping responses depending on cultural background and importantly sets the stage for

better understanding different cultural process that influence adjustment among immigrant-origin and multigenerational Black populations (Agi & Rivas-Drake, 2021).

Protective Effects of ERS Across Groups

In examining ethnic-racial socialization (ERS) domains as potential moderators of the indirect relationship in the full sample, promotion of mistrust (PM) was the only ERS domain that emerged as a significant moderator of the indirect relationship. Specifically, PM weakened the indirect effect such that individuals who reported receiving more PM messages were less likely to engage in hypervigilance in response to microaggressions and, in turn, reported lower levels of depression and anxiety symptoms. Conceptually, these findings may suggest that PM messages foster a generalized sense of caution or wariness toward other racial groups. As a result, individuals with higher levels of PM may be less surprised when encountering microaggressions, thereby reducing the need for hypervigilance in contexts where microaggressions are expected. In other words, socialization messages that promote mistrust of other racial groups may "set the stage" for how racial microaggressions are perceived and subsequently responded to. From this perspective, individuals may rely on pre-existing expectations regarding racial bias rather than engaging in sustained anticipatory monitoring in the face of racism, which may attenuate the RH pathway linking RMs to internalizing symptoms. These findings are conceptually consistent with Tyrell et al.'s (2024) multisystem model of stress and adaptation and extend existing ERS literature by highlighting how culturally specific socialization messages may shape psychological responses to racial stressors among Black emerging adults.

Regarding preparation for bias (PB) and cultural socialization (CS), no significant moderation effects were detected in the indirect effects model. These findings may reflect the developmental timing of ethnic-racial socialization, as much of the existing literature has focused on youth samples (Hughes et al., 2006). It is possible that ERS messages received earlier in life exert a less immediate influence on coping responses during emerging adulthood, a developmental period characterized by increasing autonomy and expanding social contexts (Arnett, 2007). By this stage, Black emerging adults may have already developed relatively stable ways of interpreting and responding to racial stress through repeated lived experiences, potentially reducing the direct influence of earlier familial socialization messages on immediate coping processes such as racism hypervigilance. For example, in light of emerging literature suggesting that peer socialization processes become increasingly relevant during emerging adulthood (Golden et al., 2022), it is possible that contemporary forms of racial socialization occurring within peer networks, digital spaces, and institutional contexts may play a more proximal role in shaping responses to racial stress during this developmental period. As such, the present findings may extend existing ERS literature by suggesting that the influence of ERS on coping with racial stress may shift across development, particularly as Black emerging adults navigate novel environments outside of the family context.

Clinical and Research Implications

These findings also have potential clinical implications. For example, the current study found that immigrant-origin Black emerging adults may rely heavily on racism hypervigilance associated with microaggressions. As such, they may have access to a narrower set of coping strategies, which could contribute to greater reliance on racism hypervigilance and therefore be

associated with heightened internalizing symptoms. Understanding these distinctions can help inform case conceptualization and guide the development of more culturally responsive interventions for anxiety and depression. For instance, Black immigrant-origin emerging adults presenting for mental health treatment with internalizing symptoms may benefit from being asked about their experiences with sociocultural stress, particularly racial microaggressions, as well as the strategies they use to cope with or "prepare" for racist encounters in their daily lives. Gathering information about their experiences of racial stress and coping processes can provide a stronger foundation for culturally responsive treatment planning. Furthermore, it offers opportunities for psychoeducation on the potential psychological effects of microaggressions and racism-related hypervigilance, fostering greater awareness and resilience.

At the same time, the lack of significant group differences in the overall model suggests some shared experiences across groups, similarly presenting an opportunity to integrate culture and context in clinical settings. For instance, immigrant-origin Black emerging adults may be shaped by a range of socialization processes that align their experiences more closely with those of their multigenerational peers (e.g., Thelamour & Mwangi, 2024). In addition to parental racial socialization, emerging work highlights the role of peer socialization and "reverse socialization," wherein immigrant-origin individuals reinterpret or move beyond messages received from family members and instead align more closely with the lived realities of multigenerational Black Americans in the U.S. context. This process may be driven by the recognition that racialized treatment often occurs irrespective of national origin, thereby fostering shared experiences and coping responses across groups. As such, in clinical settings where clinicians are tasked with case conceptualization for Black emerging adults with internalizing symptoms, exploring

their socialization norms and practices during intake or initial sessions could provide valuable insights into how they perceive and respond to sociocultural stressors. Understanding these socialization processes may reveal whether the thoughts and coping strategies shaped by prior socialization messages are adaptive or maladaptive, offering clinicians an opportunity to address and reframe potentially harmful patterns as part of culturally responsive treatment.

In terms of research implications, these findings highlight racism hypervigilance as an important process linking racial microaggressions to internalizing symptoms among Black emerging adults, while also pointing to meaningful variation in how this process operates across groups. Although the overall model did not differ significantly by group, the pattern of effects suggests that immigrant-origin individuals may rely more heavily on hypervigilance in response to racial stress, whereas multigenerational individuals may draw on a broader set of coping responses. Therefore, these results underscore the importance of moving beyond treating Black populations as a homogeneous group in psychological research and instead considering within-group differences that may reveal distinct processes and experiences relevant to their representation.

Limitations & Future Directions

Although the present study contributes to a growing body of literature by examining racial microaggressions (RMs) in a diverse sample of Black emerging adults and investigating ethnic-racial socialization (ERS) as a culturally relevant factor shaping coping processes, several limitations should be noted. First, while atemporal mediation may be a viable approach for examining potential indirect pathways in cross-sectional data, causal inferences cannot be established in the absence of temporal precedence (Winer et al., 2016). As such, the current

findings should be interpreted as preliminary, underscoring the need for longitudinal and experimental designs to more rigorously test the directional relationships among RMs, racism-related hypervigilance (RH), and internalizing symptoms over time. Second, although this study advances the literature by examining heterogeneity within Black populations in the United States, the measurement of immigrant-origin status was limited to self-identified ethnicity and did not include more nuanced indicators. Future research would benefit from incorporating more detailed measures, such as generational status, length of time in the United States, and parental nativity or education (Hughes et al., 2006; Simon, 2021), to more precisely capture variability in racialized experiences among Black immigrant-origin emerging adults. These indicators may help disentangle how exposure to U.S. racial dynamics and sociocultural contexts shapes coping processes and mental health outcomes. Additionally, it is important to acknowledge the heterogeneity within Black immigrant populations. For example, Caribbean and African immigrant families may differ in cultural practices, migration histories, and sociopolitical contexts, all of which may shape socialization processes in distinct ways. Historical factors such as colonization and slavery have uniquely influenced these groups, potentially informing the content and function of ethnic-racial socialization messages. Although the present study represents an initial step in disaggregating the Black diaspora by comparing multigenerational and immigrant-origin individuals, this distinction remains broad. Future research should further disaggregate immigrant-origin groups to capture more nuanced differences in cultural background and better understand how these variations shape responses to racial stress. Further, although the present study focuses on the intersection of race and immigration, there are other relevant social identities that shape exposure and adjustment to racial stress. Specifically, a

growing body of research has documented the compounded negative mental health effects experienced by Black sexual and gender minority (SGM) youth and emerging adults as a result of intersecting forms of discrimination based on both race and SGM status (e.g., English et al., 2021; Lewis & Van Dyke, 2018). As such, future research should continue to employ an intersectional framework (e.g., Lewis & Grzanka, 2016) to examine how multiple social identities jointly shape exposure to racism and subsequent coping responses.

Importantly, the present findings also highlight a need to expand how ERS is conceptualized and measured, particularly among Black immigrant-origin populations. Much of the existing ERS literature has focused on domains such as cultural socialization, preparation for bias, and promotion of mistrust, which have been primarily developed and validated in African American and Latinx samples (Hughes et al., 2006). However, these domains may not fully capture the range of socialization messages transmitted within Black immigrant families (Agi & Rivas-Drake, 2021). It is possible that Black immigrant parents engage in distinct forms of ERS that reflect transnational identities, cultural heritage, or navigation of both racial and immigrant-related stressors, which remain underrepresented in the current literature. As such, future research should move beyond traditional ERS frameworks to identify and operationalize additional domains that are culturally specific to diverse Black populations. Qualitative and mixed-methods approaches may be particularly useful in uncovering these understudied socialization processes and generating more comprehensive models of how ERS shapes coping with racial stress across the Black diaspora.

Finally, a more precise understanding of the mechanisms linking ERS, coping, and mental health may inform the development of culturally responsive prevention and intervention

efforts. For instance, interventions may benefit from targeting maladaptive forms of racism hypervigilance while simultaneously leveraging adaptive aspects of ERS to promote flexible, context-sensitive coping strategies. By clarifying these pathways, future research can help advance more nuanced and culturally grounded approaches to reducing anxiety and depressive symptoms among Black emerging adults.

Conclusion

Overall, the mental health risks posed by sociocultural stressors such as racial microaggressions remain imperative to examine in pursuit of reducing the current upward trend of internalizing symptoms among Black emerging adults. By identifying racism hypervigilance as a key pathway through which racial microaggressions are linked to depression and anxiety symptoms, these findings provide greater specificity regarding how the pervasive and often subtle nature of racial stress shapes psychological well-being. Further, by examining within-group heterogeneity and the moderating role of ethnic-racial socialization, this study underscores the importance of sociocultural context in shaping how Black emerging adults interpret and respond to racial stressors. The present findings suggest that ethnic-racial socialization may offer a particularly valuable framework for illuminating heterogeneity within Black populations, including differences that may emerge across immigrant-origin and multigenerational groups. At the same time, these findings point to the need to expand existing conceptualizations of ethnic-racial socialization beyond traditional domains to more fully capture the distinct socialization experiences of diverse Black populations, particularly those within immigrant-origin families. Moving forward, extending this work beyond racial microaggressions to examine how ethnic-racial socialization shapes responses to multiple forms of racism (e.g., overt discrimination,

online racism) may be critical for advancing a more nuanced and culturally informed understanding of racial stress and mental health among Black emerging adults.

APPENDIX

Table 1. *Descriptives & Key Study Variables.*

Demographics	***M***	***SD***
Age	23.8	3.2
Gender	***N***	***%***
Male	717	38.4
Female	1164	60.6
Immig	298	16.0
Multi	1563	84.0
Variable	**Multi *M(SD)***	**Immig *M(SD)***
RMs	2.45 (1.00)	2.69 (.99)
RH	2.89 (1.07)	3.11 (1.02)
Anxiety	14.72 (10.78)	16.50 (10.23)
Depression	15.69 (11.53)	18.45 (11.21)
CS	3.40 (1.00)	3.40 (1.00)
PB	3.00 (1.00)	3.00 (1.00)
PM	2.70 (1.00)	2.70 (1.00)

Note. Immig= immigrant-origin, Multi= multigenerational, RMs= racial microaggressions, RH= racism hypervigilance, CS= cultural socialization, PB= preparation for bias, PM= promotion of mistrust

Table 2. *Full Sample and Multigroup Indirect Effects Models*

Full Sample Indirect Effects Models				
Parameter	Anxiety	*p*	Depression	*p*
a-path (RMS → RH)	.53	.00*	.53	.00*
b-path (RH → Outcome)	2.97	.00*	3.43	.00*
Direct effect (RMS → Outcome)	3.38	.00*	3.04	.00*
Indirect Effect	**1.58 [1.30, 1.89]**	--	**1.82 [1.51, 2.18]**	--

Multigroup Indirect Effects Models				
Parameter	Anxiety	*p*	Depression	*p*
Indirect Effect (Multigen)	**1.62 [1.30, 1.97]**	**--**	**1.77 [1.40, 2.17]**	--
Indirect Effect (Immig)	**1.26 [0.70, 1.96]**	**--**	**1.84 [1.17, 2.69]**	--
Difference in indirect effects	0.37	.30	-0.07	.87
Difference in direct effects	0.50	.48	**2.03**	**.01***

Note. RMs= racial microaggressions; RH= racism hypervigilance. Multigen = multigenerational Black emerging adults; Immig = Black immigrant-origin emerging adults. Values for indirect effects are unstandardized estimates with 95% confidence intervals in brackets. Direct and indirect effects were estimated controlling for age, gender, and socioeconomic status.
*$p < .05$.

Table 3. *Full Sample and Multigroup Moderated Indirect Effects Models*

Full Sample Models						
Moderator	Anxiety	*p*	Depression	*p*		
RMs x CS	-0.03	.26	-0.03	.27		
RMs x PB	-0.03	.14	-0.03	.15		
RMs x PM	**-0.05**	**.01***	**-0.05**	**.01***		
Multi-Group Models						
Moderator	Multigen Anx	Immig Anx	Difference *p*	Multigen Dep	Immig Dep	Difference *p*
RMs x CS	-0.04	0.06	.11	-0.04	0.06	.11
RMs x PB	-0.04	0.01	.35	-0.04	0.01	.36
RMs x PM	**-0.06***	-0.004	.29	**-0.06***	-0.004	.30

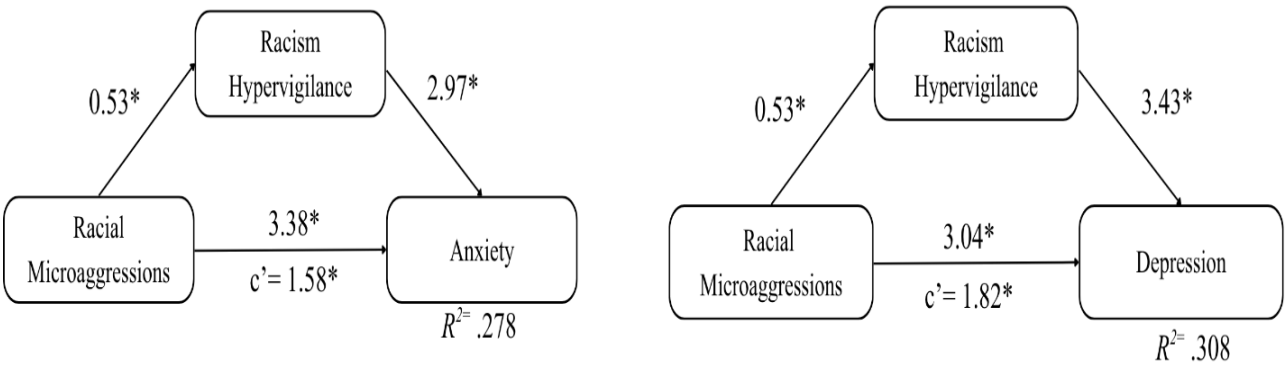
Note. RMs = racial microaggressions; CS = cultural socialization; PB = preparation for bias; PM = promotion of mistrust; Multigen = multigenerational Black emerging adults; Immig = Black immigrant-origin emerging adults. Values represent unstandardized interaction coefficients for the association between racial microaggressions and racism hypervigilance. Difference *p* values reflect tests of group differences in moderation effects across multigenerational and immigrant-origin participants. All models controlled for age, gender, and socioeconomic status.
$p < .05$*

Table 4. *Correlations of key study variables*

	Age	Gender	SES	RMs	RH	ANX	DEP	CS	PB	PM
Age	1									
Gender	.10**	1								
SES	.02	.11**	1							
RMs	.01	-.01	.11**	1						
RH	-.02	-.01	.06*	.50**	1					
ANX	-.05*	.01	0.02	.47**	.46**	1				
DEP	-.07**	-.00	-.00	.44**	.45**	.82**	1			
CS	.09**	-.03	.09**	.16**	.18**	0.03	0.02	1		
PB	.03	-.03	.09**	.38**	.34**	.21**	.20**	.54**	1	
PM	.03	.06**	.10**	.42**	.30**	.30**	.26**	.32**	.62**	1

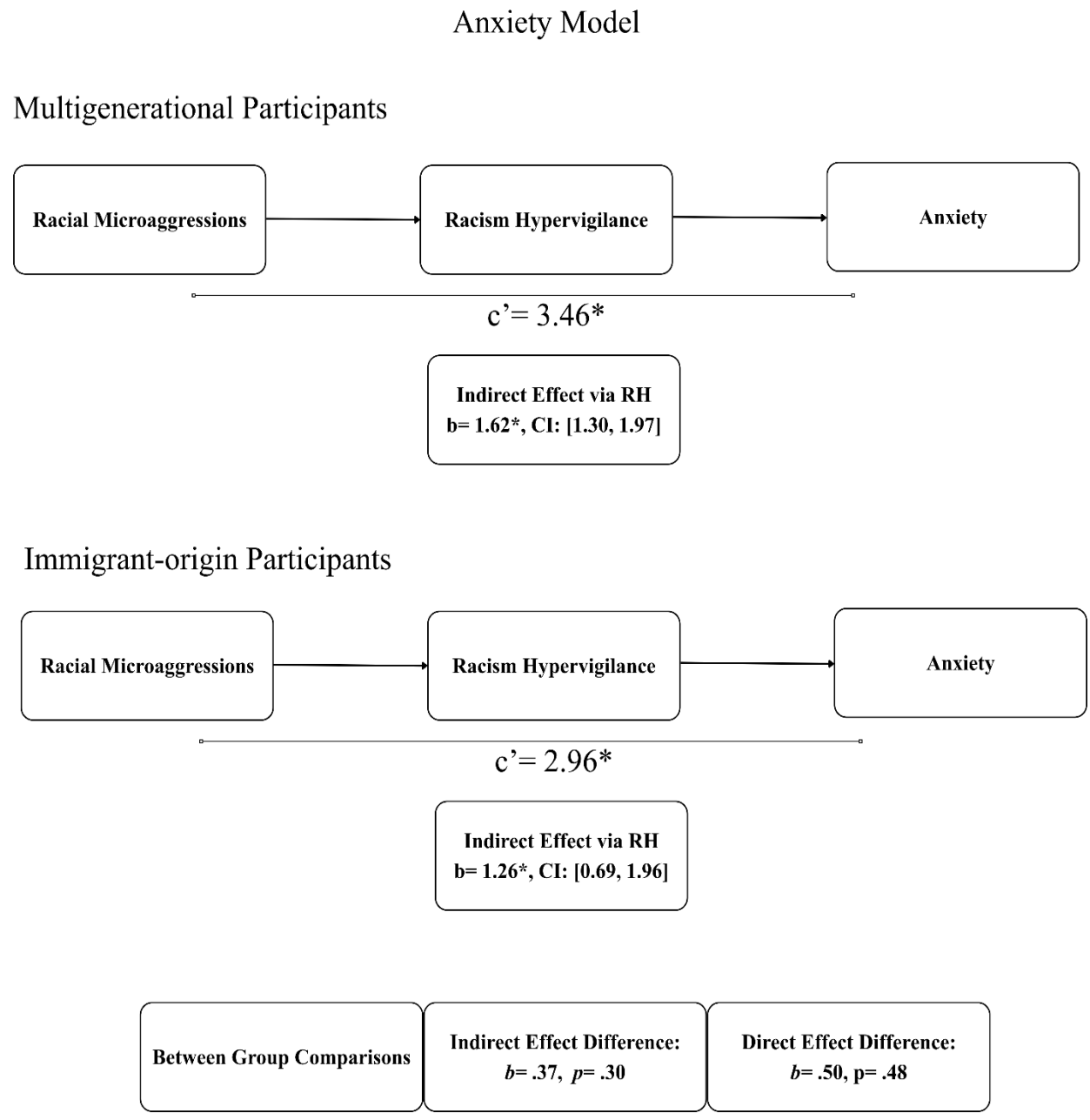
Note. RMs = racial microaggressions; RH = racism hypervigilance; ANX = anxiety symptoms; DEP = depressive symptoms; CS = cultural socialization; PB = preparation for bias; PM = promotion of mistrust.
$p < .05$*, $p < .01$**.

Figure 1. *Full-sample indirect effect models for anxiety and depression*



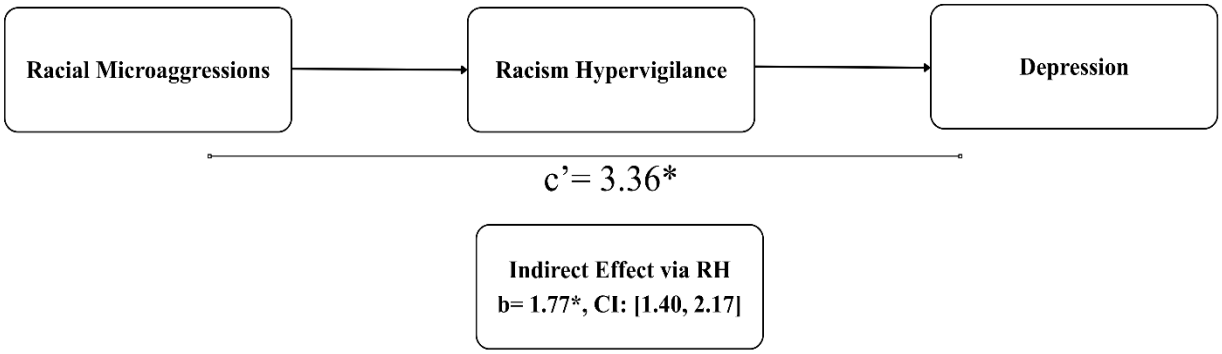
Note. Values represent unstandardized coefficients. All displayed pathways were statistically significant at $p < .001$. Covariates included gender, age, and socioeconomic status.

Figure 2. *Multigroup indirect effects models examining racism hypervigilance as a link between racial microaggressions and internalizing symptoms.*

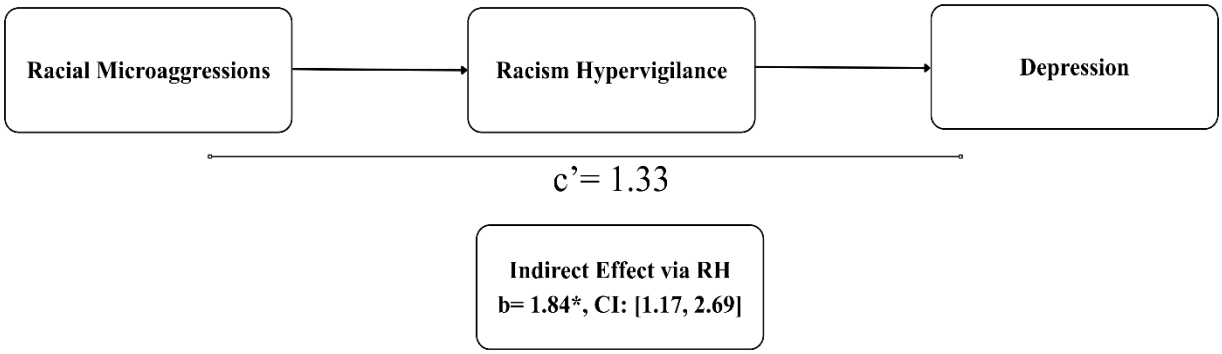


Depression Model

Multigenerational Participants



Immigrant-origin Participants



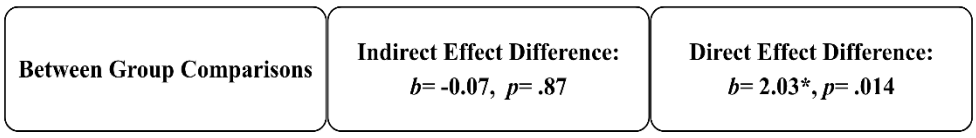
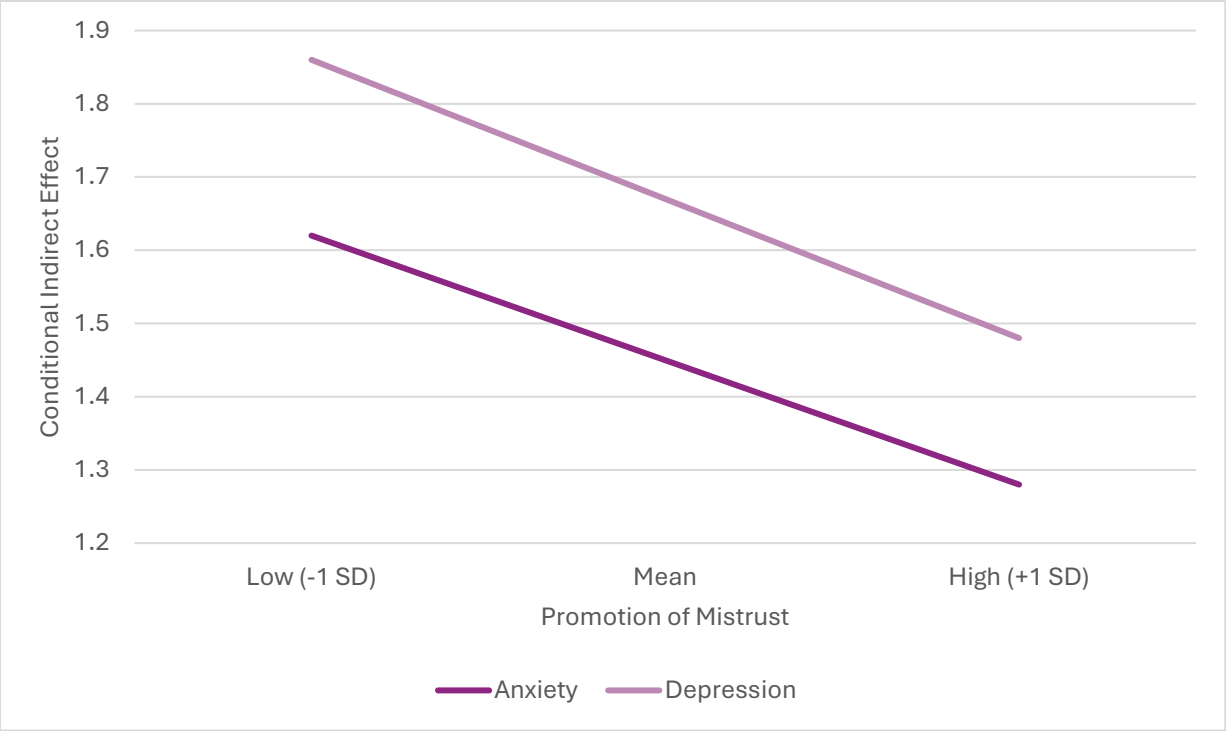
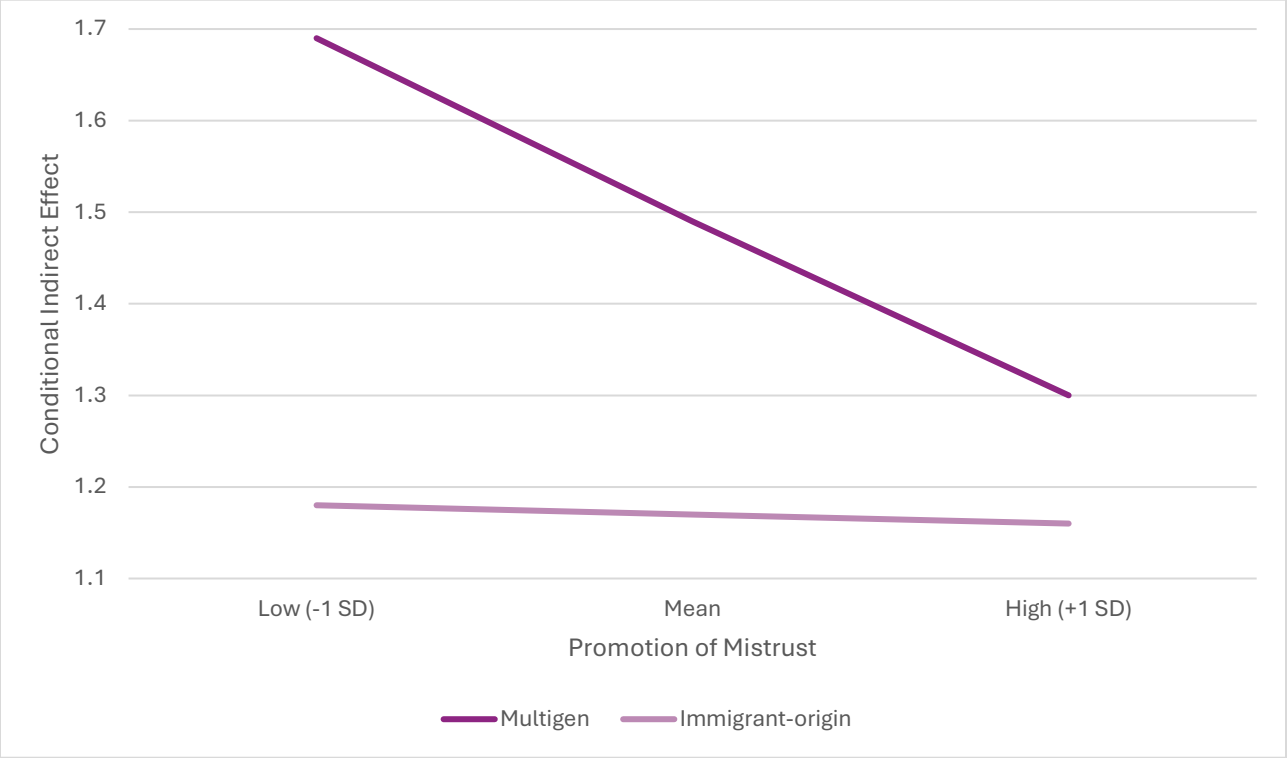


Figure 3A. *Full Sample Conditional Indirect Effects on Internalizing Symptoms*



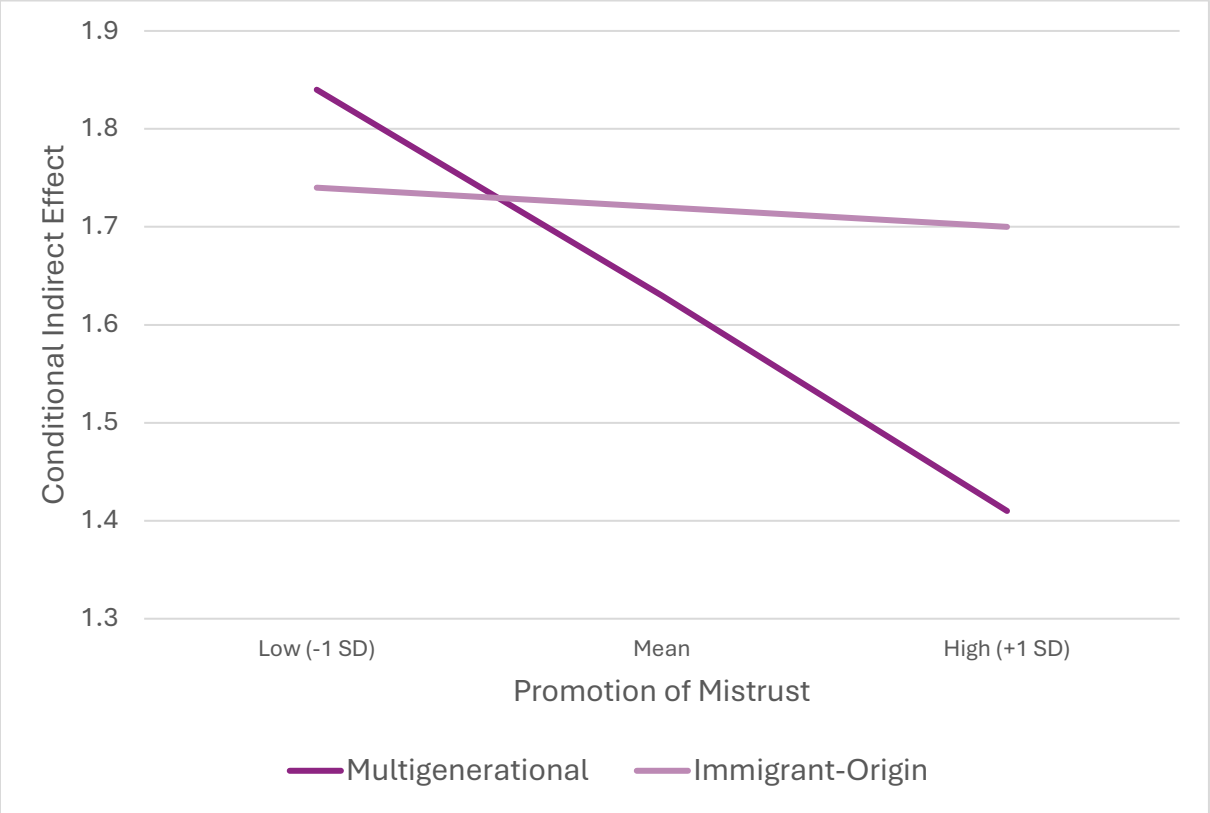
Note. Conditional indirect effects of racial microaggressions on anxiety and depression through racism hypervigilance across levels of promotion of mistrust among the full sample.

Figure 3B. *Conditional Indirect Effect on Anxiety*



Note. Conditional indirect effects of racial microaggressions on anxiety through racism hypervigilance across levels of promotion of mistrust between groups.

Figure 3C. *Conditional Indirect Effect on Depression*



Note. Conditional indirect effects of racial microaggressions on depression through racism hypervigilance across levels of promotion of mistrust between groups.

Measures for Key Study Variables

RACIAL MICROAGGRESSIONS- Inventory of Microaggressions against Black Individuals (IMABI) (Mercer, Ziegler-Hill, Wallace, & Hayes, 2011)
Events that sometimes occur in the lives of students are listed below. Please read each event carefully. Indicate whether you have experienced each event DURING THE LAST YEAR and how much the event upset you if you experienced it. Please respond using the following scale:

This has NEVER HAPPENED TO ME
This event happened but I was NOT UPSET
This event happened and I was SLIGHTLY UPSET
This event happened and I was EXTREMELY UPSET

Items:

i. I was made to feel that my achievements were primarily due to preferential treatment based on my racial/ethnic background.
ii. I was treated like I was of inferior status because of my racial/ethnic background.
iii. I was treated as if I was a potential criminal because of my racial/ethnic background.
iv. I was made to feel as if the cultural values of another race/ethnic group were better than my own.
v. Someone told me that I am not like other people of my racial/ethnic background.
vi. Someone made a statement to me that they are not racist or prejudiced because they have friends from different racial/ethnic backgrounds.
vii. I was made to feel like I was talking too much about my racial/ethnic background.
viii. When successful, I felt like people were surprised that someone of my racial/ethnic background could succeed.
ix. Someone assumed I was a service worker or laborer because of my race/ethnicity.
x. I was followed in a store due to my race/ethnicity.
xi. Someone reacted negatively to the way I dress because of my racial/ethnic background.
xii. Someone asked my opinion as a representative of my race/ethnicity.
xiii. Someone told me that they are not racist or prejudiced even though their behavior suggests that they might be.
xiv. Someone told me that everyone can get ahead if they work hard when I described a difficulty related to my racial/ethnic background.

RACISM HYPERVIGILANCE- Heightened Vigilance Scale (originally developed for the 1995 Detroit Area Study, Himmelstein et al., 2015)

NEVER
OCCASIONALLY
ABOUT HALF THE TIME
OFTEN
ALMOST ALWAYS
PREFER NOT TO ANSWER

Use the following scale to respond to the next few questions:

Items: In dealing with these kinds of day-to-day experiences how often do you:

i. Think in advance about the kinds of problems you are likely to experience?
ii. Try to prepare for possible insults before leaving home?
iii. Feel that you always have to be very careful about your appearance to get good service or avoid being harassed?
iv. Carefully watch what you say and how you say it?
v. Carefully observe what happened around you?
vi. Try to avoid certain social situations and places?

ETHNIC RACIAL SOCIALIZATION

Cultural Socialization Scale: Familial Ethnic Socialization Measure (FESM) (Umaña-Taylor, Bhanot, & Shin, 2006)

NOT AT ALL- 1
2
3
4
VERY MUCH- 5

Use the following scale to respond to the next few questions:

Please indicate how often your family of origin engaged in the following behaviors with you **before 18 years old**:

Items:

i. My family taught me about my ethnic/cultural background.
ii. My family encouraged me to respect the cultural values and beliefs of our ethnic/cultural background.
iii. My family participated in activities that are specific to my ethnic/cultural group.
iv. Our home was decorated with things that reflect my ethnic/cultural background.
v. The people who my family hung out with the most were people who share the same ethnic/cultural background as my family.
vi. My family taught me about the values and beliefs of our ethnic/cultural background.
vii. My family talked about how important it is to know about my ethnic/cultural background.
viii. My family celebrated holidays that are specific to my ethnic/cultural background.
ix. My family taught me about the history of my ethnic/cultural background.
x. My family listened to music sung or played by artists from my ethnic/cultural background.
xi. My family attended things such as concerts, plays, festivals, or other events that represent my ethnic/cultural background.
xii. My family felt a strong attachment to our ethnic/cultural background.

Preparation for Bias & Promotion of Mistrust- Parental Ethnic Racial Socialization Measure (PERS) (Hughes and Johnson, 2001, Umana-Taylor, 2001)

Use the following scale to respond to the next few questions:

NOT AT ALL- 1
2
3
4
VERY OFTEN- 5

Please indicate how often your family of origin engaged in the following behaviors with you **before 18 years old**:

Items:

i. Talked to you about stereotypes, prejudice, and/or discrimination against people of your racial/ethnic group?
ii. Talked to you about others who may try to limit you because of race/ethnicity?
iii. Talked to you about unfair treatment that occurs due to race/ethnicity?
iv. Talked to someone else about racial/ethnic discrimination when you could hear them?
v. Talked to you about expectations others might have about your abilities based on your race/ethnicity?
vi. Told you that you must be better in order to get the same rewards given to others because of race/ethnicity?
vii. Explained something on TV to you that showed discrimination against your racial/ethnic group?
viii. Talked to you about discrimination against people of a racial/ethnic group other than your own?
ix. Told you to avoid another racial/ethnic group because of its members' prejudice against your racial/ethnic group?
x. Done or said things to encourage you keep a distance from people of other races/ethnicities?
xi. Done or said things to you to keep you from trusting people of other races/ethnicities?

INTERNALIZING SYMPTOMS- Depression, Anxiety, and Stress Scale-21* (DASS-21)
(Lovibond & Lovibond, 1995)

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.
The rating scale is as follows:
0 Did not apply to me at all.
1 Applied to me to some degree, or some of the time.
2 Applied to me to a considerable degree or a good part of time.
3 Applied to me very much or most of the time.
Items:

i. I was aware of dryness of my mouth.
ii. I couldn't seem to experience any positive feeling at all.
iii. I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion)
iv. I found it difficult to work up to the initiative to do things.
v. I experienced trembling (e.g., in the hands)
vi. I was worried about situations in which I might panic and make a fool of myself.
vii. I felt that I had nothing to look forward to
viii. I felt downhearted and blue.
ix. I felt I was close to panic.
x. I was unable to become enthusiastic about anything.
xi. I felt I wasn't worth much as a person.
xii. I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat)
xiii. I felt scared without any good reason.
xiv. I felt that life was meaningless.

*Only the depression and anxiety subscales are included above.

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