



Exploring the associations between discrimination, coping, skin tone, and the psychosocial health of young adults of color

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Although valuable strides have been made in linking racial and ethnic discrimination to health outcomes, scholars have primarily used between-person methodological approaches, which assess the implications of reporting high or low mean levels of discrimination. Alternatively, within-person approaches assess the implications of intraindividual variation, or acute changes, in an individual's exposure to discrimination. These approaches pose two fundamentally different questions about the association between discrimination and health, and empirical work that disaggregates these effects remains scarce. Scholars have also called for research exploring whether sociocultural factors—such as race-related coping and skin tone—contour these associations. To address gaps in extant literature, the current study examined 1) how an individual's average level of exposure to discrimination (between-person) and weekly fluctuations in these encounters (within-person) relate to psychosocial health and 2) whether race-related coping (confrontational and passive coping) and skin tone moderate these associations. Analyses were conducted using weekly diary data from African American and Latinx young adults ($n = 140$). Findings indicated that reporting higher mean levels of exposure to discrimination and encountering more discrimination than usual on a given week were both associated with poorer psychosocial health. Results also suggest that the efficacy of young adults' coping mechanisms may depend on their skin tone and the nature of the discriminatory events encountered.

discrimination | coping | mental health | skin tone | within person

Theorists conceptualize exposure to racial and ethnic discrimination as mundane due to its pervasiveness yet extreme due to its association with key indicators of emotional, psychological, and physical well-being (1). Chronic exposure to discrimination has been linked to poorer health outcomes, maladaptive physiological processes, and increased psychosocial risk (2–4). Early exposure to racial and ethnic discrimination is particularly consequential (5), and the ramifications of repeatedly encountering discrimination as a youth often extend into adulthood (6).

Although meaningful advancements have been made in linking discrimination to health outcomes, scholars have primarily employed methodological approaches that obscure our ability to understand the full scope of these associations. Scholarship on the implications of racial and ethnic discrimination tends to focus on between-person differences or how interindividual differences in average levels of exposure to discrimination—relative to the sample mean—relate to health outcomes (7). Within-person approaches place greater emphasis on intraindividual variation and examine how fluctuations in an individual's exposure to racial and ethnic discrimination—relative to their average levels of exposure to discrimination—relate to changes in their health outcomes. These approaches pose two fundamentally different questions and convey distinct information regarding the link between discrimination and health. Between-person approaches elucidate the implications of being a person who encounters high or low levels of racial and ethnic discrimination, whereas within-person approaches explore the consequences of fluctuation in an individual's own exposure to discrimination (8). Between-person and within-person effects of predictors often differ in magnitude and direction, and employing approaches that disaggregate these effects presents a more robust test of stress process theories and allows for a more holistic understanding of the association between discrimination and health.

There has also been limited research exploring how sociocultural factors—such as race-related coping and skin tone—may intersect to influence the association between discrimination and health. Encountering discrimination often requires individuals to mobilize their resources and coping mechanisms in an effort to manage the tangible effects of these experiences (e.g., interpersonal conflict, lost opportunities, etc.) and the negative emotional, psychological, and physiological sequelae of these stressors (9, 10). Individuals may employ a variety of cognitive, affective, and behavioral strategies to

Significance

The current study helps clarify who may be at risk for poorer psychosocial health when encountering discrimination and in what circumstances. Experiencing higher levels of discrimination (between-person) and more discrimination than usual on a given week (within-person) were both associated with poorer psychosocial well-being; however, the emotional and psychological sequelae of these experiences differed. Interrelations among within-person and between-person discrimination, skin tone, and coping indicate that individuals may experience the effects of discrimination differently based on their skin tone and suggest that the efficacy of race-related coping may be influenced by the immediate context (the nature of discrimination encountered) and individual sociodemographic characteristics (skin tone). Together, findings illustrate the difficulty individuals of color may face when coping with discrimination.

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cope with race-related stressors that can serve multiple purposes. For example, confrontational coping mechanisms may be used to down-regulate emotional responses to discrimination (9) or as a prejudice-reduction strategy that deters offenders from continuing to engage in discriminatory behavior (11). Alternatively, individuals may opt for passive strategies, like ignoring the situation or perpetrator of discrimination, that suppress the urge to confront and reduce the likelihood of interpersonal conflict. Studies examining the efficacy of confrontational and passive coping have been mixed (3, 9), and scholars have called for additional research examining the contextual and individual factors that may moderate the usefulness of these strategies.

Research suggests that skin tone—or the lightness or darkness of one's skin color—plays a critical role in shaping how individuals are perceived and the nature, frequency, and degree of exposure to racial and ethnic discrimination (12). For example, darker-skin African American and Latinx individuals are more likely to be negatively stereotyped (13–15) and are subjected to a greater number of discriminatory interactions (16, 17). The psychosocial weight of these experiences becomes clear when examining the association between skin tone and emotional, psychological, and physical vulnerability (18–20). Consequently, incorporating race-related coping and skin tone into empirical work that examines the implications of racial and ethnic discrimination may provide a more contextually and culturally informed representation of the association between discrimination and health.

Guided by stratification theory (21) and the biopsychosocial model (10), the current study examined how within-person and between-person variations in exposure to racial and ethnic discrimination relate to the psychosocial well-being of African American and Latinx young adults. An added goal of this investigation was to explore whether race-related coping and skin tone jointly moderate the association between discrimination and psychosocial health.

Stratification Theory and the Biopsychosocial Model

Stratification theory provides a framework for understanding the role that historical and contemporary sociocultural contexts play in shaping the distribution of power, privilege, and disadvantage. Theorists argue that the outcomes of systems of stratification—or who receives what in society—are a direct reflection of who and what are valued by the dominant social group (21). Race, ethnicity, and skin tone have long functioned as axes of social positioning, and greater political, economic, and social privileges are conferred to individuals who culturally or phenotypically emulate Whiteness. Conversely, individuals whose racial and ethnic identification (i.e., African American and Latinx) or skin tone (i.e., darker skin) relegates them to a marginalized social position are far more likely to encounter macro- and microlevel stressors, including poorer residential, employment, educational, marital, and political prospects as well as increased exposure to racial, ethnic, and skin tone–related discrimination (22, 23).

Theoretical explanations of stress processes offer greater insight into how race- and ethnicity-related stressors get under the skin and influence physical and psychological well-being. The biopsychosocial model developed by Clark et al. (10) conceptualizes stress as a multifaceted transactional process that encompasses relations between 1) the stressor or instigating event, 2) the meaning attributed to the event, 3) an individual's resources and coping mechanisms, and 4) perceptions of the availability and efficacy of these resources. Authors posit that individuals may

draw on a number of coping mechanisms to attenuate the effects of race- and ethnicity-related stressors and assert that negative emotional, psychological, and physiological responses are likely to occur if the demands presented by the stressor exceed individual and collective resources. Decisions about how to cope with race- and ethnicity-related stressors may be informed by the immediate environment (24) and surrounding social and cultural context (25), and variability in the extent to which these behaviors and cognitions help an individual rationalize, manage, or eliminate a stressor may precipitate within-group disparities in health. In line with stratification and stress process theories, race, ethnicity, and skin tone may operate as distinct sociocultural factors that modulate the choice and efficacy of an individual's race-related coping mechanisms and in turn, the association between discrimination and health.

Racial and Ethnic Discrimination as a Distinct Sociocultural Stressor for Young Adults

Contemporary data on the prevalence of racial and ethnic discrimination among US adults indicate that 76% of African Americans and 58% of Latinx individuals have experienced at least one instance of racial or ethnic discrimination during their lifetime (26). Although these assessments provide useful information regarding the prevalence of exposure to discrimination, short-term assessments may better capture the chronic and recurrent nature of exposure to discrimination. For example, daily diary research suggests that African American and Latinx individuals encounter exposure to discrimination on a weekly basis. These studies indicate that African Americans experience an average of five to six instances of racial discrimination over a 2-wk period (27), while Latinx individuals tend to experience at least one event over this duration (28).

The prevalence of exposure to racial and ethnic discrimination differs across the life course (29) and may be particularly salient for college-attending young adults of color. Scholars argue that as youth of color leave their family environment to seek jobs and trades and attend college, experiences of racial and ethnic discrimination are likely to increase (30). Young adults who attend primarily White institutions (PWIs) for college may be particularly susceptible to ongoing exposure to discrimination. Griffith et al. (31) reify this notion in their study on Black students' experiences with discrimination at a PWi and assert that “[r]ather than being experienced as isolated, students' responses indicated these race-related stressors felt interconnected and cumulative in a way that profoundly affected their college experience” (ref. 31, p. 132). Heightened exposure to discrimination in young adulthood may engender cascading risk and increase the likelihood of experiencing poorer psychosocial well-being in adulthood (6). Individual strategies for coping with race- and ethnicity-related stress do not develop overnight, and during this time, young adults may form coping repertoires or a patterned set of responses to racial and ethnic discrimination that are repeatedly enacted across the life course (32).

Although there are intraindividual differences in emotional responses to racial and ethnic discrimination, reactions often include disappointment, frustration, outrage, hurt, and shock (33), with feelings of anger occurring most frequently (34, 35). The psychological repercussions of encountering racial and ethnic discrimination as a young adult often include greater anxiety and depression (6, 36) and may result in posttraumatic stress symptoms (37, 38) and other forms of psychopathology (39). Chronic exposure to discrimination also harbors negative implications for college students' academic performance and sense of

belonging (40, 41). Taken together, research on the implications of race- and ethnicity-related stressors indicates that these encounters are not mere annoyances or small events that young adults of color easily navigate; instead, these experiences exert a profound impact on young adults' daily behaviors and long-term functioning.

Race-Related Coping, Skin Tone, and Discrimination

Research on the efficacy of race-related coping mechanisms is complex and suggests that active strategies—which directly address the perpetrator or stressor—and passive strategies—which involve ignoring the situation or offender—may have positive and negative implications for health and well-being. For example, Hyers' (42) daily diary study on women's strategies for coping with discrimination found that individuals who engaged in more confrontational coping mechanisms experienced greater interpersonal conflict, but also described the rewards associated with challenging or educating perpetrators of discrimination, and they reported feeling more agentic during these encounters. Despite evidencing certain benefits, such as the reduction of a perpetrator's prejudicial attitudes (11), more reactive or confrontational coping strategies may put individuals at greater risk for experiencing negative emotional and mental health outcomes. For example, using a nationally representative sample of Black adults, Pittman (43) found that individuals who expressed anger in response to racial discrimination were likely to experience poorer well-being and greater psychological distress. Similarly, using a longitudinal sample of Mexican-origin youth, Park et al. (44) found that active anger expression mediated the association between exposure to ethnic discrimination and increased anxiety and depressive symptoms.

Although individuals who opt for more avoidant coping mechanisms may experience less interpersonal conflict, they are also more likely to be dissatisfied with the outcome of the situation, to express a desire to act differently in the future, and to perseverate about the event after its conclusion (42). Similarly, Seaton et al. (45) found that avoidant coping partially mediated the association between racial discrimination and depressive symptoms, which suggests that passive coping strategies may operate as a vehicle for decreased emotional and psychological well-being. Given the mixed nature of scholarship on the efficacy of confrontational and passive coping, examining whether sociocultural factors, such as skin tone, moderate the effectiveness of these strategies may help clarify discrepant findings.

Historically, African American and Latinx individuals have experienced shared and unique forms of racial trauma, one of which being colorism (i.e., skin tone trauma) (18). Although the geographic and historical origin of colorism may differ for both groups,* color-based stratification is rooted in colonization and White hegemony and reinforces the value of Whiteness (46, 47). As such, lighter-skin African American and Latinx individuals who are closer in proximity to White aesthetics experience distinct advantages in regard to educational attainment, occupational status, and income (48–50). Conversely, darker-skin individuals of color often experience a greater number of sociostructural and mundane daily stressors and tend to report poorer physical health (19, 51), greater psychosocial risk (19, 20), and higher mortality rates (52).

Research examining the intersection of race, ethnicity, and skin tone suggests that individuals of color may experience the

effects of racial and ethnic marginalization differently due to their skin tone. Racial typicality—or the degree to which an individual exhibits physical features that are characteristic of their racial or ethnic group (14)—may indirectly impact psychosocial health by influencing the extent to which individuals are exposed to race-related stereotyping, prejudice, and ultimately, discrimination. Darker-skin African American and Latinx individuals garner more negative evaluations from out-group members and are more likely to be perceived in ways that align with the negative stereotypes associated with their racial or ethnic group (e.g., criminal, aggressive, threatening, uneducated, deviant) (15, 53). As a result, darker-skin individuals are more likely to experience discrimination. For example, using a sample of Mexican American adults, Ortiz and Telles (17) found that every one-unit increase in the darkness of an individual's skin tone was associated with a 20% increase in the odds of experiencing discrimination. Similarly, Hersch (16) found that individuals with lighter skin were 18% less likely to experience racial discrimination compared with darker-skin individuals. Color-based hierarchies are also prominent on college campuses, and darker-skin students of color are more likely to encounter racial and ethnic discrimination (54) and various forms of microaggressions (13).

In contrast, greater phenotypic proximity to Whiteness may imbue lighter-skin African American and Latinx individuals with interpersonal advantages that may not be extended to their darker-skin counterparts. For example, Hebl et al. (55) found that African Americans who exhibited greater racial typicality reported fewer interactions with out-group members and were less likely to have friends outside of their racial group. Similar findings have been evidenced using Latinx samples. Vazquez (15) examined the implications of exhibiting “flexible ethnicity”—or the ability to be perceived as non-Hispanic White—using a sample of Mexican American adults. When discussing the interpersonal privileges of having Eurocentric physical features (e.g., light skin and hair, green eyes), one participant remarked,

It's an advantage. I have the privilege of blend[ing] in ... I think there are certain privileges to looking not stereotypically Mexican. Things I take for granted like not being followed in a store, not being labeled as somebody who doesn't have money ... The other thing is that ... because I am so light I see things and I hear things that other people say just assuming that I'm on their side (ref. 15, p. 61).

Collectively, these findings suggest that skin tone may act as a culturally specific demographic factor that moderates the ease at which individuals of color are able to traverse predominantly White spaces and their likelihood of experiencing racial and ethnic discrimination.

Although scholars have examined the links between skin tone, person perception, and discrimination, few empirical studies have explored how skin tone may influence the efficacy of race-related coping. The efficacy of an individual's coping responses hinges on whether these strategies are able to meet the demands of the immediate context (9). Given the salience of racial, ethnic, and skin tone-related ideologies, these perceptions may color how coping responses are received by out-group members and in turn, the success of these behaviors.

The Current Study

The current study aimed to foster a more contextually and culturally informed understanding of the links between racial and ethnic discrimination and health by exploring two critical yet

*For African Americans, colorism has domestic roots in the trans-Atlantic slave trade (47, 48). Alternatively, for Latinx individuals, colorism is the product of a broader pattern of European conquest and colonization of Latin American countries.

understudied areas of interest. First, we examined whether within-person fluctuation in exposure to racial and ethnic discrimination is related to young adults' psychosocial well-being above and beyond the effects of between-person exposure to discrimination. Theoretical explanations of stress processes underscore the individualized nature of stress and posit that negative psychological responses are likely to occur when race-related stressors overwhelm an individual's coping mechanisms and resources (10). Despite these assertions, scholars have primarily employed between-person methods to explore the association between discrimination and health (56). Although these approaches elucidate the health-related consequences of reporting high (or low) mean levels of exposure to discrimination—relative to other individuals in the sample—within-person approaches more closely align with conceptualizations of stress and examine how fluctuation in an individual's exposure to discrimination—relative to their average level of exposure to discrimination—relates to health outcomes.

The current study sought to address limitations in extant literature by disaggregating the effects of within-person and between-person variation in exposure to discrimination. Examining the implications of both effects allows for a more rigorous and holistic assessment of the association between discrimination and health and helps explicate the circumstances that engender psychosocial risk (i.e., exposure to high levels of discrimination or experiencing more discriminatory events than usual) (8). We hypothesized that there would be a significant within-person effect for exposure to discrimination, indicating that on weeks when young adults of color encounter more exposure to discrimination than usual, they would be likely to experience increased anxiety and depressive symptoms and anger. We also predicted that there would be a significant between-person effect for discrimination, indicating that young adults of color who report higher mean levels of exposure to discrimination would be likely to experience greater anxiety and depressive symptoms and anger.

Second, we investigated whether the relations among within-person and between-person discrimination and psychosocial health may be attenuated or exacerbated by an individual's skin tone and general tendency to confront or avoid addressing discriminatory events. We also considered whether the effects of coping vary depending on an individual's skin tone. We hypothesized that young adults' engagement in race-related coping mechanisms (i.e., confrontational and passive coping) and skin tone would intersect to moderate the associations among within-person discrimination, between-person discrimination, and indicators of psychosocial health. We predicted that the negative association among within-person discrimination, between-person discrimination, and psychosocial health would be stronger for darker-skin young adults who reported more frequent engagement in confrontational and passive coping. Alternatively, we predicted that the negative association among within-person and between-person discrimination and psychosocial health would be less pronounced for lighter-skin young adults who reported more frequent engagement in confrontational and passive coping.

Methods

Procedure and Sample. Data come from the Health and Relationships During College survey, which examined the health and relationships of African American and Latinx young adults attending the University of Missouri-Columbia during the 2015 to 2016 academic school year. The study was approved by the University of Missouri-Columbia Institutional Review Board (no. 2002764). Contact information for students who self-identified as African American or Latinx was

obtained from a list provided by the Office of Diversity and Inclusion. From this list, 2,138 students were randomly selected to receive an email asking if they were interested in participating in a study looking at the weekly experiences of students of color at their university. Two hundred fifty-seven students responded to this email, and of those students, 56% ($n = 145$; Black, $n = 91$; Latinx, $n = 54$) agreed to participate. Respondents were then invited to the Health and Relationships During College laboratory and were given a consent form (*SI Appendix, section S1*) that explained how their contact information was gathered, the study's purpose and procedures, risks and benefits of participation, and how their data would be used. They were also informed that their participation was voluntary and could be revoked at any time without penalty. After completing the consent form, participants were given the initial assessment.

As part of the study, respondents completed a 1.5-h initial assessment via Qualtrics (week 1 [W1]), a 15-min weekly diary assessment for 4 consecutive weeks (W2 to W5), and a 1-h end assessment survey. The current study utilized data from W1 to W5 of the study. Respondents received \$10 for completing the initial assessment, \$10 for each weekly assessment, and \$5 for the end assessment. The current study used data from W1 to W5 of the study and only included participants who completed at least one time point of the weekly assessment ($n = 140$).

At the initial assessment, respondents' ages ranged from 18 to 25, with an average age of 20.70 ($SD = 1.24$). One-third of the respondents (30.34%; $n = 44$) identified as male, and 69.66% ($n = 101$) identified as female. Participants were in various stages of their undergraduate education; 17.93% ($n = 26$) of the sample were freshmen, 24.83% ($n = 36$) were sophomores, 24.14% ($n = 35$) were juniors, and 33.10% ($n = 48$) were seniors. Most respondents were from the Midwest (74.50%; $n = 108$), and they most often came from families whose average income exceeded \$100,000 (30.34%; $n = 44$).

Measures.

Race-related coping (W1). During the initial assessment, participants responded to two items that assessed their tendency to engage in confrontational and passive coping in response to racial and ethnic discrimination (57). To assess the frequency of respondents' engagement in confrontational coping, participants responded to one item asking, "How often have you used the strategy of dealing with discrimination by saying something rude right back to the person?" To assess the frequency of respondents' engagement in passive coping, participants responded to one item asking, "How often have you used the strategy of ignoring the situation?" Responses were recorded on a five-point Likert scale with options ranging from one (never) to five (very often).

Skin tone (W1). A modified version of a previously validated scale (58) was used to assess participants' skin tone during the initial assessment. Respondents were shown 10 figures and were instructed to select the image that best represented their skin tone. Figures were numbered from 1 to 10, with higher scores denoting darker skin tones.

Racial and ethnic discrimination (W2 to W5). The Racism and Life Experiences scale (59) was used to assess participants' experiences with racial and ethnic discrimination during the weekly assessment. The scale consisted of 18 items and instructed participants to indicate whether they had experienced a series of race/ethnicity-related events [e.g., "being accused of something or treated suspiciously," "been ignored, overlooked, or not given service (in restaurant, etc.)"] during the past week. Response options were dichotomous, and participants received a zero (no) or one (yes) for each item. Item scores for each week were summed to create an indicator of weekly exposure to racial/ethnic discrimination. The scale demonstrated adequate reliability across weeks ($W2\alpha = 0.90$, $W3\alpha = 0.88$, $W4\alpha = 0.91$, $W5\alpha = 0.85$).

Anxiety symptoms (W2 to W5). A brief measure of generalized anxiety disorder (60) was used to assess respondents' anxiety symptoms during the weekly assessment. The scale consisted of seven items that reflected symptoms of anxiety (e.g., "unable to relax," "nervous") and instructed participants to indicate how much they had been bothered by each symptom within the past week. Responses were recorded on a four-point Likert scale with options ranging from one (not at all) to four (severely; it bothered me a lot). Item scores for each week were averaged to create a weekly score for anxiety symptoms. The scale demonstrated good reliability across weeks ($W2\alpha = 0.90$, $W3\alpha = 0.93$, $W4\alpha = 0.93$, $W5\alpha = 0.93$).

Depressive symptoms (W2 to W5). A short depression index (61) was used to assess participants' depressive symptoms during the weekly assessment. The

scale consisted of eight items (e.g., "I felt sad," "I had crying spells") and instructed participants to indicate how often each item described their feelings within the past week. Responses were recorded on a four-point Likert scale with response options ranging from one (rarely to none of the time) to four (most of the time). Item scores for each week were averaged to create a weekly score for depressive symptoms. The scale demonstrated good reliability across weeks ($W2\alpha = 0.88$, $W3\alpha = 0.90$, $W4\alpha = 0.89$, $W5\alpha = 0.92$).

Anger (W2 to W5). The Patient-Reported Outcomes Measurement Information System short form for anger (62) was used to assess respondents' feelings of anger during the weekly assessment. The scale consisted of five items (e.g., "I felt angry," "I felt like I was ready to explode") and instructed participants to indicate how often each item described their feelings within the past week. Responses were recorded on a five-point Likert scale with options ranging from one (never) to five (always). Item scores for each week were averaged to create a weekly score for anger. The scale demonstrated good reliability across weeks ($W2\alpha = 0.90$, $W3\alpha = 0.91$, $W4\alpha = 0.90$, $W5\alpha = 0.93$).

Control variables (W1). Race/ethnicity, gender, and family income were used as covariates in all analyses. Participants were asked to indicate their gender identity and were able to select male, female, transgender, or other (e.g., queer, gender neutral). To assess family income, participants were asked, "What is your best guess of your household income over the past 12 months?" Respondents were able to select family incomes that ranged from below \$10,000 to \$100,001+.

Analytic Approach. Within-person and between-person effects for racial and ethnic discrimination were disaggregated using the procedures outlined by Curran and Bauer (7). Within-person effects for discrimination represented participants' weekly deviation from their person-specific mean or average level of exposure to discrimination. Alternatively, between-person effects for discrimination represented the extent to which participants deviated from the sample mean or the average level of exposure to discrimination aggregated across all participants and weekly assessments.

Given that the data involved weekly diary assessments, longitudinal multilevel models were computed in R using the lme4 package (63) to examine whether within-person discrimination and between-person discrimination were associated with young adults' psychosocial health. Psychosocial health outcomes were analyzed in separate models, with race/ethnicity, gender, and family income included as control variables. The week that each assessment was taken was also included as a time-varying covariate to account for systematic time trends in the data ($W1 = 0$, $W2 = 1$, $W3 = 2$, $W4 = 3$) (7).

We also assessed whether confrontational coping, passive coping, and skin tone moderated the association among within-person discrimination, between-person discrimination, and psychosocial health. In line with recommendations

from Aiken et al. (64), continuous predictors were grand-mean centered prior to computing the interaction terms. Two-way interaction terms were generated by multiplying each focal predictor by each moderator (i.e., within-person/between-person discrimination \times confrontational coping, within-person/between-person discrimination \times passive coping, within-person/between-person discrimination \times skin tone). These terms were analyzed in separate models to examine each moderator's unique influence on the association among within-person discrimination, between-person discrimination, and psychosocial health. Three-way interactions were computed by multiplying each focal predictor by skin tone and each coping mechanism (i.e., within-person/between-person discrimination \times confrontational coping \times skin tone, within-person/between-person discrimination \times passive coping \times skin tone). Three-way interaction terms for within-person discrimination and between-person discrimination were regressed on each outcome of interest, along with all lower-order interactions. The interactions package (65) was used to conduct simple slopes analyses and generate plots of significant interactions.

Results

Descriptive Statistics. Most of the young adults sampled (78%) experienced at least one instance of racial and ethnic discrimination over the course of the weekly assessment (i.e., W2 to W5), with the number of racialized encounters ranging from 0 to 53 (*SI Appendix, section S2* has the means, SDs, and correlations for continuous study variables). During W2, participants reported an average of 3 ($SD = 3.96$; Minimum = 0, Maximum = 16) experiences of discrimination. During W3, participants reported an average of 2 ($SD = 3.33$; Minimum = 0, Maximum = 17) experiences of discrimination. During W4, participants reported an average of 2 ($SD = 3.63$; Minimum = 0, Maximum = 17) experiences of discrimination. During W5, participants reported an average of 1 ($SD = 2.91$; Minimum = 0, Maximum = 13) experience of discrimination. Over the course of the weekly assessment, participants experienced 8 instances of racial and ethnic discrimination on average ($SD = 10.76$; Minimum = 0, Maximum = 53), and "being stared at by a stranger" was the most frequently reported racialized encounter. Other forms of racial and ethnic discrimination commonly experienced by participants included "having one's ideas ignored," "being treated rudely or disrespectfully," and "overhearing or being told an offensive joke, etc."

Table 1. Multilevel models assessing the effect of within-person and between-person discrimination on young adults' psychosocial health ($n = 140$)

Predictors	Anxiety			Depression			Anger		
	Estimate	SE	P	Estimate	SE	P	Estimate	SE	P
Intercept	0.94***	0.11	<0.001	0.70***	0.09	<0.001	2.54***	0.13	<0.001
Within-person discrimination	0.02*	0.01	0.04	0.01	0.01	0.27	0.04**	0.02	0.01
Between-person discrimination	0.10***	0.02	<0.001	0.08***	0.02	<0.001	0.09***	0.02	<0.001
Week	-0.07***	0.02	0.001	-0.05**	0.02	0.004	-0.14***	0.03	<0.001
Race/ethnicity	0.06	0.11	0.61	-0.06	0.09	0.55	-0.07	0.13	0.61
Gender	0.02	0.11	0.88	-0.03	0.10	0.73	0.07	0.13	0.60
Family income	-0.01	0.01	0.36	-0.01	0.01	0.58	-0.01	0.02	0.63
Random effects									
σ^2	0.24			0.16			0.46		
τ_{00}	0.28 _{id}			0.22 _{id}			0.37 _{id}		
ICC	0.54			0.58			0.45		
N	140 _{id}			140 _{id}			140 _{id}		
Observations		507			507			507	
Marginal R^2		0.16			0.13			0.13	
Conditional R^2	0.61			0.63			0.52		

_{id} denotes level 2 parameter estimates. σ^2 represents the variance for fixed effects.

τ_{00} represents the variance for random effects. ICC represents the intraclass correlation coefficient.

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.

Within-Person and Between-Person Discrimination on Psychosocial Health. There was a positive association among within-person discrimination in relation to anxiety symptoms and anger (Table 1), indicating that on weeks when young adults encountered more discrimination than usual, they were likely to experience increased anxiety symptoms and anger. Between-person discrimination was positively associated with anxiety and depressive symptoms and anger, indicating that young adults who experienced higher mean levels of exposure to discrimination were likely to experience greater anxiety and depressive symptoms and anger.

Race-Related Coping and Skin Tone as Moderators.

Two-way interactions. There were significant two-way interactions among between-person discrimination and confrontational coping in relation to young adults' anxiety and depressive symptoms and anger (SI Appendix, section S3 has results). However, post hoc analyses were not conducted to probe these interactions given that significant three-way interactions between these variables emerged in subsequent analyses. Confrontational coping did not moderate the associations among within-person discrimination and young adults' anxiety and depressive symptoms or anger. Lastly, passive coping and skin tone did not moderate the associations among between-person or within-person discrimination and indicators of psychosocial health (SI Appendix, sections S4 and S5, respectively, have results).

Three-way interactions. *Within-person and between-person discrimination, confrontational coping, and skin tone.* There were significant three-way interactions among within-person discrimination, confrontational coping, and skin tone in relation to anxiety symptoms and anger (SI Appendix, section S6 has results). Simple slopes analyses indicated that the positive relation among within-person discrimination and anxiety symptoms was only significant for lighter-skin young adults who reported above-average levels of confrontational coping ($b = 0.08$, $SE = 0.03$, $P < 0.01$) (Fig. 1) and was not significant for lighter-skin young adults who reported below-average engagement in confrontational coping ($b = 0.00$, $SE = 0.03$, $P = 0.97$). In contrast, the positive relation among within-person discrimination and anxiety symptoms

was only significant for darker-skin young adults who reported below-average levels of confrontational coping ($b = 0.04$, $SE = 0.02$, $P < 0.05$) and was not significant for darker-skin young adults who reported above-average engagement in confrontational coping ($b = 0.00$, $SE = 0.02$, $P = 0.94$).

Similar findings emerged when probing the three-way interaction among within-person discrimination, confrontational coping, and skin tone in relation to anger. Simple slopes analyses indicated that the positive relation among within-person discrimination and anger was only significant for lighter-skin young adults who reported above-average levels of confrontational coping ($b = 0.11$, $SE = 0.04$, $P < 0.01$) (Fig. 2) and was not significant for lighter-skin young adults who reported below-average engagement in confrontational coping ($b = -0.02$, $SE = 0.04$, $P = 0.64$). Alternatively, the positive relation among within-person discrimination and anger was only significant for darker-skin young adults who reported below-average levels of confrontational coping ($b = 0.06$, $SE = 0.03$, $P < 0.05$) and was not significant for darker-skin young adults who reported above-average engagement in confrontational coping ($b = 0.03$, $SE = 0.02$, $P = 0.16$).

Lastly, associations among within-person discrimination, confrontational coping, and skin tone in relation to depressive symptoms were not significant. In addition, relations among between-person discrimination, confrontational coping, and skin tone in relation to young adults' psychosocial health were not significant.

Within-person and between-person discrimination, passive coping, and skin tone. There were significant three-way interactions among between-person discrimination, passive coping, and skin tone in relation to anxiety and depressive symptoms (SI Appendix, section S7 has results). Simple slopes analyses indicated that the positive relation among between-person discrimination and anxiety symptoms was significant for lighter-skin young adults who reported above-average levels of passive coping ($b = 0.18$, $SE = 0.04$, $P < 0.01$) (Fig. 3) and was not significant for lighter-skin young adults who reported below-average engagement in passive coping ($b = 0.06$, $SE = 0.03$, $P = 0.07$). Alternatively, for darker-skin young adults, the positive relation among between-person discrimination and anxiety symptoms was significant

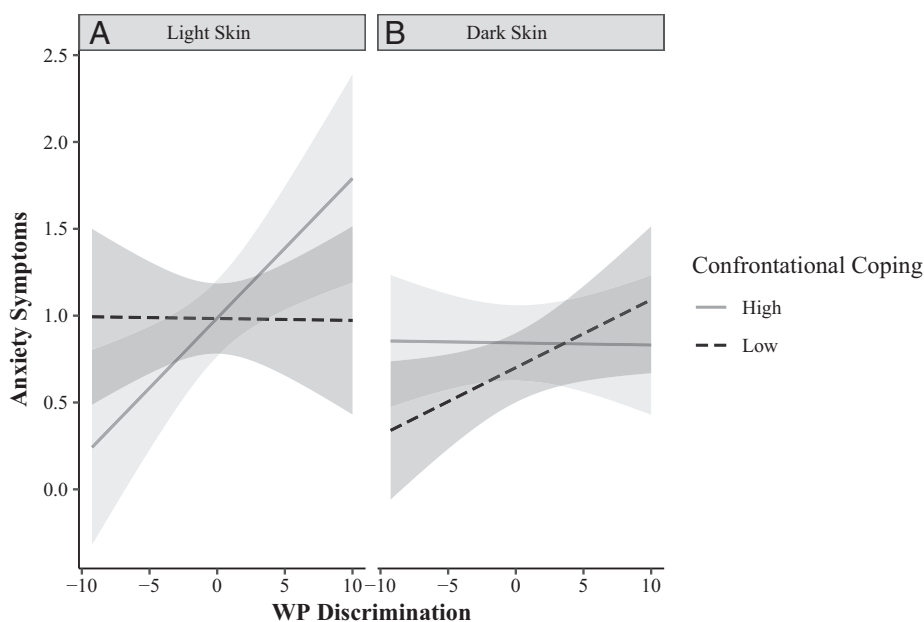


Fig. 1. (A) Slope of within-person discrimination and anxiety symptoms at high ($M = 3.43$) and low ($M = 1.15$) levels of confrontational coping for lighter-skin individuals ($M = 3.46$). (B) Slope of within-person discrimination and anxiety symptoms at high ($M = 3.43$) and low ($M = 1.15$) levels of confrontational coping for darker-skin individuals ($M = 6.95$). Shaded regions represent the 95% CIs for estimated slopes. The text has slope parameters.

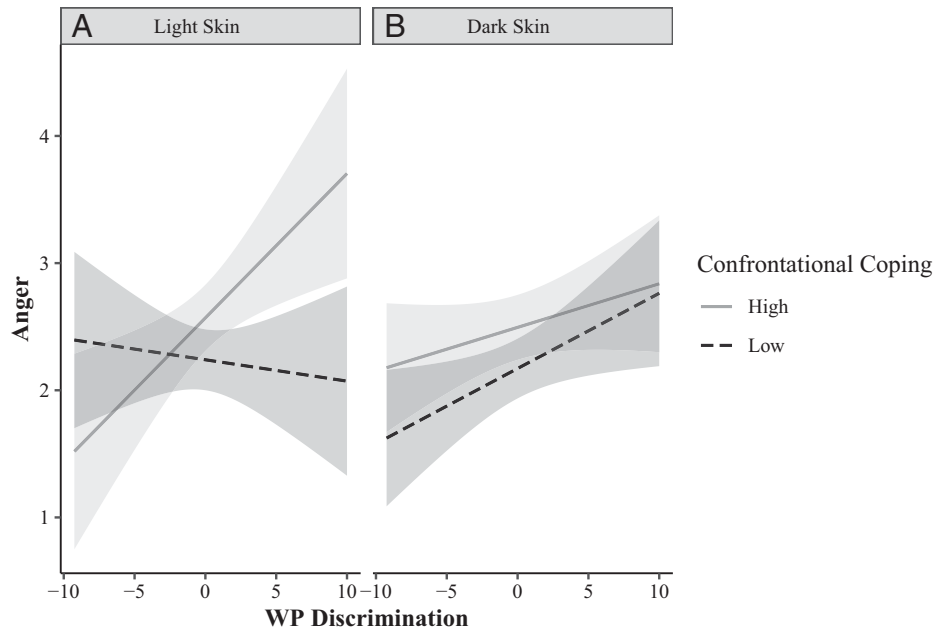


Fig. 2. (A) Slope of within-person discrimination and anger at high ($M = 3.43$) and low ($M = 1.15$) levels of confrontational coping for lighter-skin individuals ($M = 3.46$). (B) Slope of within-person discrimination and anxiety symptoms at high ($M = 3.43$) and low ($M = 1.15$) levels of confrontational coping for darker-skin individuals ($M = 6.95$). Shaded regions represent the 95% CIs for estimated slopes. The text has slope parameters.

irrespective of whether they reported below-average ($b = 0.15$, $SE = 0.04$, $P < 0.01$) or above-average engagement in passive coping ($b = 0.08$, $SE = 0.04$, $P < 0.05$). Simple slopes contrasts indicated that these estimates were not significantly different from one another ($b = 0.06$, $SE = 0.06$, $P = 0.28$). Additional contrasts were performed to assess whether the magnitude of the association among between-person discrimination and anxiety symptoms differed for lighter-skin and darker-skin individuals at high levels of passive coping. Findings indicated that the strength of the association among between-person discrimination and anxiety symptoms was equivalent for lighter-skin and darker-skin individuals at high levels of passive coping ($b = 0.09$, $SE = 0.06$, $P = 0.14$).

A similar pattern surfaced when probing the three-way interaction among between-person discrimination, passive coping, and skin tone in relation to depressive symptoms. Findings indicated that the positive relation among between-person discrimination and depressive symptoms was only significant for lighter-skin young adults who reported above-average levels of passive coping ($b = 0.13$, $SE = 0.04$, $P < 0.01$) (Fig. 4) and was not significant for lighter-skin young adults who reported below-average engagement in passive coping ($b = 0.02$, $SE = 0.03$, $P = 0.39$). In contrast, the positive relation among between-person discrimination and depressive symptoms was significant for darker-skin young adults irrespective of whether they reported below-average ($b = 0.13$, $SE = 0.03$, $P < 0.01$) or above-average engagement in

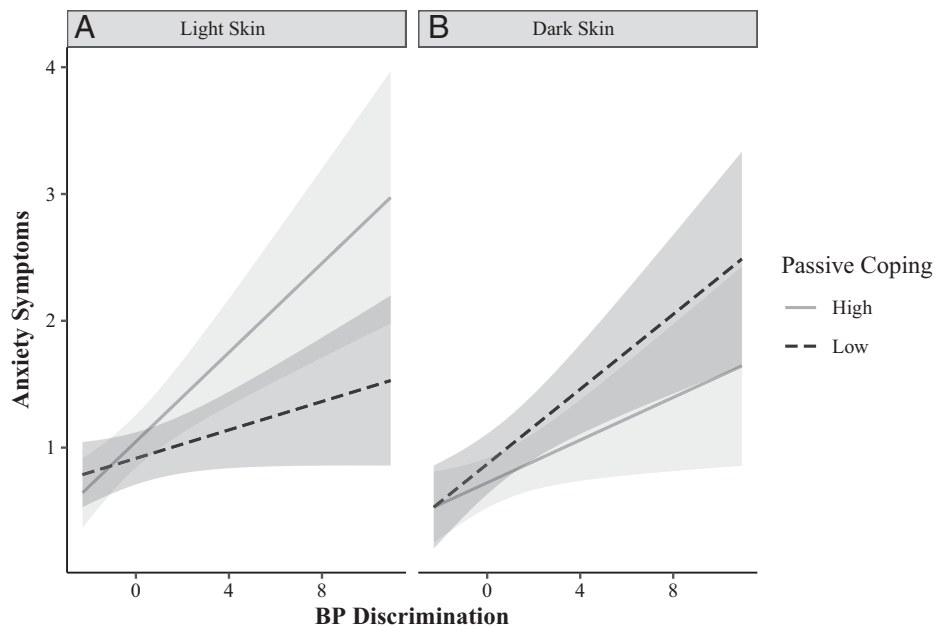


Fig. 3. (A) Slope of between-person discrimination and anxiety symptoms at high ($M = 4.60$) and low ($M = 2.23$) levels of passive coping for lighter-skin individuals ($M = 3.46$). (B) Slope of between-person discrimination and anxiety symptoms at high ($M = 4.60$) and low ($M = 2.23$) levels of passive coping for darker-skin individuals ($M = 6.95$). Shaded regions represent the 95% CIs for estimated slopes. The text has slope parameters.

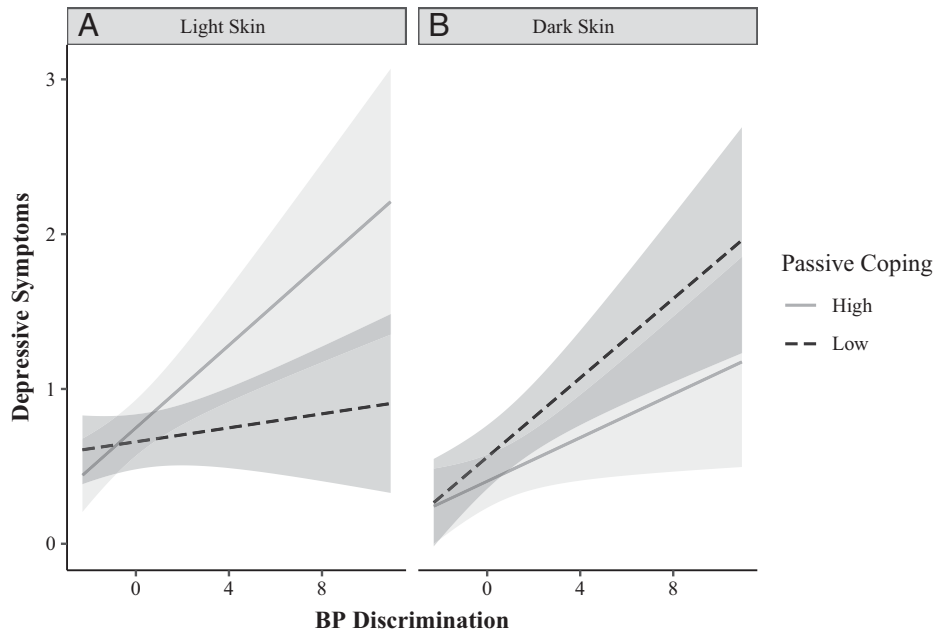


Fig. 4. (A) Slope of between-person discrimination and depressive symptoms at high ($M = 4.60$) and low ($M = 2.23$) levels of passive coping for lighter-skin individuals ($M = 3.46$). (B) Slope of between-person discrimination and depressive symptoms at high ($M = 4.60$) and low ($M = 2.23$) levels of passive coping for darker-skin individuals ($M = 6.95$). Shaded regions represent the 95% CIs for estimated slopes. The text has slope parameters.

passive coping ($b = 0.07$, $SE = 0.03$, $P < 0.05$). Simple slope contrasts indicated that these estimates were not significantly different from one another ($b = 0.06$, $SE = 0.05$, $P = 0.25$). Additional contrasts were performed to examine whether the magnitude of the association among between-person discrimination and depressive symptoms differed for lighter-skin and darker-skin individuals at high levels of passive coping. Findings indicated that the strength of the association among between-person discrimination and depressive symptoms was equivalent for lighter-skin and darker-skin individuals at high levels of passive coping ($b = 0.06$, $SE = 0.05$, $P = 0.24$).

Lastly, associations among between-person discrimination, passive coping, and skin tone in relation to anger were not significant. In addition, associations among within-person discrimination, passive coping, and skin tone in relation to young adults' psychosocial health were not significant.

Discussion

The extant literature posits a general and perhaps, oversimplified framework for understanding the health-related implications of exposure to racial and ethnic discrimination. Given these limitations, scholars have called for empirical work that disaggregates between-person and within-person effects of discrimination (56) and studies that elucidate the individual and contextual factors that moderate the efficacy of race-related coping (9). The current study heeded these calls and aimed to provide a more contextually and culturally informed representation of the association between discrimination and health by examining how within-person and between-person effects of racial and ethnic discrimination relate to the psychosocial health of African American and Latinx young adults. We also examined whether skin tone and the strategies young adults use to manage these stressors intersect to make the association between discrimination and health more nuanced.

Within-Person and Between-Person Effects of Discrimination. Findings mirror extant literature that identifies racial and ethnic

discrimination as a salient sociocultural stressor for young adults of color (30). Most of the young adults in our sample experienced discrimination during the weekly assessment, and as hypothesized, within-person and between-person effects of discrimination were associated with their psychosocial health. Within-person findings aligned with theoretical conceptualizations of the association between racism and health (10) and indicated that on weeks when young adults encountered more discrimination than usual, they were likely to experience greater anxiety symptoms and feelings of anger. Between-person findings demonstrated that young adults who reported higher mean levels of exposure to discrimination were likely to report increased anxiety and depressive symptoms and anger. These findings suggest that chronic exposure to racial and ethnic discrimination as well as acute weekly increases in these encounters are key determinants of psychosocial risk for African American and Latinx young adults.

Theoretical explanations of the etiology and treatment of depression may help explain nonsignificant findings between within-person discrimination and young adults' depressive symptoms. Scholars argue that feelings of anger may be directed inward toward the self and manifest as depressive symptoms over time (66). Given that an individual's most immediate response to racial and ethnic discrimination is often anger (34, 35), it is possible that the weekly assessment was too short of an interval to capture increases in young adults' depressive symptoms. Alternatively, lagged analyses linking within-person discrimination to young adults' depressive symptoms at a later time point may have evidenced significant associations.

Moderation Effects by Race-Related Coping and Skin Tone. Interactions among within-person and between-person discrimination, race-related coping, and skin tone underscore the importance of disaggregating the effects of racial and ethnic discrimination and help illuminate the difficulty young adults of color may face when coping with acute and chronic exposure to discrimination. In their seminal review on race-related coping, Brondolo et al. (9), theorize that "[t]he strategies that are

effective for quickly terminating a specific episode of maltreatment are not necessarily the same as those needed to manage the possibility of longer-term exposure. A variety of coping strategies may be needed at each point” (ref. 9, p. 66). Findings from the current study reify this assertion and indicate that skin tone may add an additional layer of complexity that moderates the efficacy of strategies for coping with acute and chronic exposure to discrimination.

Within-person discrimination. Consistent with existing research and theory, findings from the current study indicate that racial, ethnic, and skin tone-based systems of stratification continue to have implications for the health and well-being of individuals of color. Results indicated that darker-skin young adults who reported below-average levels of confrontational coping were likely to experience greater anxiety symptoms and feelings of anger on weeks when they encountered more discrimination than usual. These associations were not significant for darker-skin young adults who engaged in above-average levels of confrontational coping. An opposing pattern was evidenced for lighter-skin young adults of color. When lighter-skin young adults reported above-average levels of confrontational coping, they were likely to experience increased anxiety symptoms and feelings of anger on weeks when they encountered more discrimination than usual. Conversely, when lighter-skin young adults reported below-average levels of confrontational coping, these associations were not significant.

Although color hierarchies privilege individuals whose physical features more closely approximate Whiteness (47), findings underscore the dynamic and complex nature of sociocultural processes and suggest that the interpersonal rewards (or costs) individuals experience due to their skin color are not immutable and may vary based on situational factors. Darker-skin African American and Latinx individuals are more likely to be perceived through the lens of controlling images (15), which paint members of their racial and ethnic group as aggressive, criminal, and threatening, and these representations may enhance the utility of confrontational coping when noncharacteristic incidents of discrimination arise. These stereotypes may increase the efficacy of confrontational coping as a prejudice-reduction strategy and may help darker-skin individuals meet the demands of the immediate context by deterring perpetrators from continuing to engage in discriminatory behavior (11). Confrontational coping may also be effective in these situations because individuals may not have repeated contact with the offender or frequent the contexts in which these encounters occurred, which may reduce the interpersonal drawbacks of these strategies. Ultimately, the costs of engaging in confrontational coping may be low for darker-skin individuals in acute circumstances, and these strategies may yield intrapersonal benefits by helping individuals down-regulate their emotions (9) and ending a discriminatory encounter (11).

In contrast, colorist ideologies may act as a sociocultural barrier for lighter-skin individuals that undermines the utility of confrontational coping in these circumstances. Lighter-skin individuals tend to garner more positive and counterstereotypic attributions and are more likely to be perceived as educated, intelligent, and wealthy (13–15). Cultural tropes and stereotypes also portray lighter-skin individuals as soft, docile, and nonthreatening (13, 15). Although these representations may facilitate more positive interactions with out-group members, they may also make confrontational coping a less effective prejudice-reduction strategy for lighter-skin individuals. Instead of helping lighter-skin individuals meet the demands of the immediate context, engaging in confrontational coping in these

moments may escalate conflict or lead to additional discrimination due to the violation of color-based norms.

Between-person discrimination. Between-person findings also underscore the nuanced role that skin tone may play in influencing associations between discrimination, coping, and health and suggest that the efficacy of race-related coping strategies may vary based on an individual’s sociodemographic characteristics (e.g., skin tone) and whether they are contending with acute or chronic exposure to discrimination. Although the tendency to engage in confrontational coping was protective for darker-skin young adults of color who experienced acute weekly increases in discrimination, these strategies were not effective for individuals contending with chronic exposure to racial and ethnic discrimination. Darker-skin young adults who experienced recurrent exposure to discrimination (i.e., above-average levels of discrimination) during the 4-wk assessment were likely to report greater anxiety and depressive symptoms. These associations persisted for darker-skin individuals irrespective of their degree of engagement in passive coping. Alternatively, between-person findings for lighter-skin individuals evidenced a clear pattern that emphasized the protective role of low engagement in passive coping. Specifically, findings indicated that lighter-skin young adults who experienced above-average exposure to discrimination were likely to report greater anxiety and depressive symptoms when engaging in high levels of passive coping. These associations were not significant for lighter-skin young adults who reported below-average levels of passive coping.

Disparities in the outcome of passive coping when contending with chronic discrimination may stem from differences in the social position of darker- and lighter-skin individuals. Contemporary extensions of stress process theories (12) and skin tone trauma models (18) assert that an individual’s skin tone influences the nature, frequency, and degree of race- and ethnicity-related stress experienced; the appraisal and utilization of one’s resources and coping mechanisms; and ultimately, an individual’s degree of adaptation and resilience. In line with this supposition, research indicates that darker-skin individuals encounter more exposure to structural and interpersonal racism and are routinely subjected to messages within and outside of their racial and ethnic group that communicate their inferiority relative to lighter-skin individuals. These experiences are significant, and they may exert an enduring impact on the psyche of darker-skin individuals and increase emotional and psychological reactivity to racial and ethnic discrimination. For example, in a qualitative study on the psychosocial impact of colorism among African American women, one participant stated, “I remember my uncle calling me ugly; he has dark skin too. His insults scarred me; I’ve worked hard to be ‘good enough’” (ref. 67, p. 76). Biopsychosocial frameworks that explore the links between discrimination and health posit that recurrent exposure to racial and ethnic discrimination may overwhelm an individual’s existing resources and coping mechanisms and trigger psychological and physiological responses that impair one’s ability to adaptively respond to these events (10). Extant literature supports these perspectives, and scholars have found that Black young adults who report greater lifetime and recent exposure to discrimination (i.e., discrimination encountered within the past year) exhibit increased affective reactivity when exposed to new instances of discrimination (68). Accordingly, routine exposure to mutually reinforcing systems of oppression may deprive darker-skin individuals of economic and social capital as well as valuable interpersonal and intrapersonal resources that may help combat the effects of these experiences.

Empirical work that investigates how skin tone may contour the association between discrimination and psychosocial health remains scarce; however, when pairing the aforementioned findings with the literature on racial trauma (69) and skin tone trauma (18), these bodies of literature collectively suggest that routine exposures to racist and colorist incidents are likely to engender greater emotional and psychosocial vulnerability among darker-skin individuals and more pronounced responses to racial and ethnic discrimination as a result. Research conducted by Tran et al. (70) supports this assertion and found that the well-established link between racial discrimination and depressive symptoms was only significant for darker-skin individuals. Although this study was conducted using a sample of Asian American college students, these findings are in accordance with results from the current study and suggest that lighter-skin individuals may experience distinct advantages that better position these individuals to cope with chronic exposure to discrimination.

In the current study, infrequently engaging in passive coping only yielded positive outcomes for lighter-skin individuals. Lighter-skin individuals of color may experience the world—and in turn, interpersonal instances of racial and ethnic discrimination—in a way that is qualitatively different from their darker-skin counterparts (13). Scholars have often explored the consequences of exhibiting high levels of racial typicality or the degree to which an individual exhibits physical features that are characteristic of their racial or ethnic group (14). However, less work has been devoted to exploring the protective effects of exhibiting low racial typicality and more specifically, how exhibiting physical features that are more in line with stereotypically White aesthetics may serve as a valuable interpersonal resource. Exhibiting more stereotypically White physical features may signal greater proximity to Whiteness and result in more positive out-group interactions and improved psychosocial functioning, which may enhance lighter-skin individuals' ability to leverage nonavoidant forms of coping to meet the demands presented by recurrent exposure to race- and ethnicity-related stressors. For example, research conducted by Ayala and Chalupa Young (13) suggests that race-related coping responses may vary by skin tone. Using a sample of Latinx college students, the authors found that lighter-skin respondents were more likely to cope with discrimination by engaging in on-campus activities and organizations, such as the university newspaper, intramural sports, and faith-based clubs, relative to darker-skin individuals. Lighter-skin respondents also described the benefits of integrating themselves within these spaces and explained that this coping mechanism increased their feelings of belonging on campus, helped them build supportive social networks, and exposed them to individuals in their institution who were able to provide instrumental support and bolster their social capital. Although we did not examine the implications of this form of coping in the current study, exploring whether lighter-skin individuals may have a wider range of effective coping mechanisms to choose from when encountering chronic exposure to discrimination may be a pertinent area of exploration for future studies.

Lastly, it is also important to acknowledge how the context in which the current study took place may contribute to observed findings. The prevalence of racial and ethnic discrimination may be more pronounced for darker-skin young adults of color who attend a PWI. In these contexts, young adults of color may be subjected to “profound” and “interconnected” discriminatory events on a weekly basis (31). Although lighter-skin individuals also contend with these experiences, darker-skin individuals encounter discrimination more frequently in

these settings (13, 54). In these contexts, darker-skin young adults may find themselves overwhelmed and ill equipped to manage the influx of race- and ethnicity-related stressors, and the coping mechanisms they employ may not be enough to assuage the negative emotional and psychological sequelae of these events.

Taken together, interrelations among between-person and within-person effects of discrimination, coping, and skin tone illustrate how sociocultural forces may constrain the availability and efficacy of race-related coping responses and influence young adults' psychosocial health. Results also highlight the dynamic nature of sociocultural processes and suggest that the interpersonal advantages an individual may experience due to their skin tone may depend on the situational context.

Strengths and Limitations. The current study makes several contributions to the extant literature. First, it demonstrates the utility of using short-term assessments when examining the implications of exposure to racial and ethnic discrimination and the importance of disaggregating the effects of within-person and between-person variation in exposure to discrimination. Second, it explicates the health-related implications of intraindividual and interindividual variability in exposure to discrimination and helps clarify who is at risk for poorer psychosocial health and in what circumstances. Third, results accentuate the importance of understanding the strategies that young adults of color use to manage race- and ethnicity-related stressors and suggest that associations between sociodemographic factors and the nature of the discriminatory event experienced (i.e., chronic vs. acute) may make effectively coping with discrimination a complex endeavor. Fourth, results suggest that the efficacy of race-related coping strategies may precipitate within-group disparities in psychosocial risk. Continuing to empirically investigate the role that race, ethnicity, and skin tone play in determining how coping responses are received may help broaden our understanding of the antecedents of within-group heterogeneity in psychosocial health and can aid in the development of interventions to mitigate psychosocial risk among minoritized populations.

Findings from this study also evidence important practical implications and suggest that educators should avoid recommending a single strategy as the best way to cope with discrimination. Instead, interventions that aim to enhance young adults' cognitive flexibility—or the ability to envision a variety of ways to cope with racial stressors (71)—may better equip youth to choose coping mechanisms that meet the demands of the situation. Specifically, interventions that teach a wide range of coping mechanisms, help youth appropriately identify the costs and benefits of each strategy given situational factors, and provide guided practice implementing each strategy are critical. It should also be recognized that engaging in this type of cognitive work may be psychologically taxing for young adults of color and can inadvertently increase psychosocial vulnerability (71). Therefore, content that presents strategies for engaging in emotional and physical self-care in the wake of these events must be an integral component of these interventions.

Lastly, it is paramount to acknowledge that the burden of addressing racial and ethnic discrimination should not be the sole responsibility of individuals of color. It is critical that individuals with social, economic, and political privilege exercise allyship by using their social capital to empower marginalized groups (72). For example, instructors may be well poised to educate students on the role that social, historical, and political contexts play in influencing the psychosocial and emotional well-being of individuals of color. Educators and administrators

should also make a concerted effort to create a safe space for young adults of color to dialogue about discriminatory experiences. Diversity and inclusion programs should also include content that articulates how controlling images and politics of respectability have been used as a form of social control that undermines the otherwise healthy expression of emotions stemming from exposure to racial and ethnic discrimination.

Although the current study demonstrates robust findings and several methodological strengths, results should be interpreted in the context of several limitations. First, sample size constraints may have limited our ability to detect small effect sizes for variables of interest (*SI Appendix, sections S8–S13* have the power analysis results). Future studies may benefit from replicating this work using larger samples to determine whether smaller effects exist that may broaden our understanding of the associations between these constructs. Scholars may also benefit from using additional power generated from an increase in sample size to explore whether the associations between these constructs differ by race, ethnicity, and experiential factors, such as lifetime exposure to discrimination.

Second, the current study utilized a random sampling technique to generate a selected sample (i.e., individuals who were invited to participate in the study). The response rate for the study was relatively low, and we were unable to examine whether there were differences between those who did and did not participate, which may limit the generalizability of results. Related, the current study focused on young adults of color attending a PWI in the Midwest. Future research is needed to better understand the intersections among within-person and between-person variability in exposure to discrimination, coping, and skin tone for Latinx and African American young adults at universities in which they are more represented or are the numerical majority (e.g., historically Black colleges/universities and Hispanic-serving institutions).

Third, items used to measure young adults' race-related coping strategies were administered during the initial assessment (W1) and assessed youths' general tendency to engage in passive or confrontational coping in response to discrimination. It is possible that young adults may have employed a variety of coping mechanisms to manage weekly encounters with discrimination (9) and that these strategies may have differed from the orientations reported during the initial assessment (73). Accordingly, extant literature may benefit from incorporating measures of race-related coping into momentary ecological assessments to better capture how individuals of color react to discrimination in a given situation and how these responses relate to young adults' psychosocial health.

Finally, we were unable to assess the decision-making process underlying young adults' choice of race-related coping mechanisms and how youth perceived the efficacy of these strategies. In an interpersonal context, African American and Latinx youth may experience "double consciousness," which involves being intimately aware of the self and how one's actions may be perceived by others (74). Accordingly, future research may benefit from examining how cognitive appraisal, personal experience, identity, and sociocultural and contextual factors collectively influence an individual's choice of coping strategy and in turn, how these responses are perceived by others.

Conclusion

Jones et al. (75) argue that social justice becomes apparent when all members of society have the ability to reach their full potential. The current study takes an important step in this direction by using robust contextually and culturally informed methods to explicate the emotional and psychological consequences of living in a racialized and colorized society. Findings from the current study underscore the important role that historical and contemporary sociocultural contexts play in framing the lived experiences of minoritized populations and suggest that racial and ethnic discrimination, skin tone, and race-related coping strategies are intersecting sociocultural factors that may engender health disparities within and between groups.

Data, Materials, and Software Availability. We conferred with the IRB office for our institution and have created an anonymized dataset with study variables that can be shared upon request.

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1. G. Carroll, Mundane extreme environmental stress and African American families: A case for recognizing different realities. *J. Comp. Fam. Stud.* **29**, 271–284 (1998).
2. D. L. Lee, S. Ahn, Discrimination against Latina/os: A meta-analysis of individual-level resources and outcomes. *Couns. Psychol.* **40**, 28–65 (2012).
3. E. A. Pascoe, L. Smart Richman, Perceived discrimination and health: A meta-analytic review. *Psychol. Bull.* **135**, 531–554 (2009).
4. K. H. Zeiders, A. M. Landor, M. Flores, A. Brown, Microaggressions and diurnal cortisol: Examining within-person associations among African-American and Latino young adults. *J. Adolesc. Health* **63**, 482–488 (2018).
5. L. Cave, M. N. Cooper, S. R. Zubrick, C. C. J. Shepherd, Racial discrimination and child and adolescent health in longitudinal studies: A systematic review. *Soc. Sci. Med.* **250**, 112864 (2020).
6. T. C. Yang, I. C. Chen, S. W. Choi, A. Kurtulus, Linking perceived discrimination during adolescence to health during mid-adulthood: Self-esteem and risk-behavior mechanisms. *Soc. Sci. Med.* **232**, 434–443 (2019).
7. P. J. Curran, D. J. Bauer, The disaggregation of within-person and between-person effects in longitudinal models of change. *Annu. Rev. Psychol.* **62**, 583–619 (2011).
8. L. Hoffman, R. S. Stawski, Persons as contexts: Evaluating between-person and within-person effects in longitudinal analysis. *Res. Hum. Dev.* **6**, 97–120 (2009).
9. E. Brondolo, N. Brady Ver Halen, M. Pencille, D. Beatty, R. J. Contrada, Coping with racism: A selective review of the literature and a theoretical and methodological critique. *J. Behav. Med.* **32**, 64–88 (2009).
10. R. Clark, N. B. Anderson, V. R. Clark, D. R. Williams, Racism as a stressor for African Americans. A biopsychosocial model. *Am. Psychol.* **54**, 805–816 (1999).
11. A. M. Czopp, M. J. Monteith, A. Y. Mark, Standing up for a change: Reducing bias through interpersonal confrontation. *J. Pers. Soc. Psychol.* **90**, 784–803 (2006).
12. S. McNeil Smith, A. M. Landor, Toward a better understanding of African American families: Development of the sociocultural family stress model. *J. Fam. Theory Rev.* **10**, 434–450 (2018).
13. M. I. Ayala, D. Chalupa Young, Racial microaggressions and coping mechanisms among Latina/o college students. *Soc. Forum* **37**, 200–221 (2022).
14. K. B. Maddox, S. A. Gray, Cognitive representations of Black Americans: Reexploring the role of skin tone. *Pers. Soc. Psychol. Bull.* **28**, 250–259 (2002).
15. J. M. Vasquez, Blurred borders for some but not "others": Racialization, "flexible ethnicity," gender, and third-generation Mexican American identity. *Soc. Perspect.* **53**, 45–71 (2010).
16. J. Hersch, Skin color, physical appearance, and perceived discriminatory treatment. *J. Socio-Economics* **40**, 671–678 (2011).
17. V. Ortiz, E. Telles, Racial identity and racial treatment of Mexican Americans. *Race Soc. Probl.* **4**, 41–56 (2012).
18. A. M. Landor, S. McNeil Smith, Skin-tone trauma: Historical and contemporary influences on the health and interpersonal outcomes of African Americans. *Perspect. Psychol. Sci.* **14**, 797–815 (2019).

19. E. P. Monk Jr., The cost of color: Skin color, discrimination, and health among African-Americans. *AJS* **121**, 396–444 (2015).
20. E. H. Telzer, H. A. Vazquez Garcia, Skin color and self-perceptions of immigrant and US-born Latinas: The moderating role of racial socialization and ethnic identity. *Hisp. J. Behav. Sci.* **31**, 357–374 (2009).
21. G. E. Lenski, *Power and Privilege: A Theory of Social Stratification* (University of North Carolina Press, 1966).
22. A. Landor, A. Barr, Politics of respectability, colorism, and the terms of social exchange in family research. *J. Fam. Theory Rev.* **10**, 330–347 (2018).
23. D. R. Williams, M. Sternthal, Understanding racial-ethnic disparities in health: Sociological contributions. *J. Health Soc. Behav.* **51** (suppl.), S15–S27 (2010).
24. J. J. Good, C. A. Moss-Racusin, D. T. Sanchez, When do we confront? Perceptions of costs and benefits predict confronting discrimination on behalf of the self and others. *Psychol. Women Q.* **36**, 210–226 (2012).
25. T. Zhou, G. D. Bishop, Culture moderates the cardiovascular consequences of anger regulation strategy. *Int. J. Psychophysiol.* **86**, 291–298 (2012).
26. Pew Research Center, Race in America 2019, 2019. <https://www.pewsocialtrends.org/2019/04/09/race-in-america-2019/>. Accessed 14 October 2021.
27. A. L. Burrow, A. D. Ong, Racial identity as a moderator of daily exposure and reactivity to racial discrimination. *Self. Ident.* **9**, 383–402 (2010).
28. L. Torres, A. D. Ong, A daily diary investigation of Latino ethnic identity, discrimination, and depression. *Cultur. Divers. Ethnic Minor. Psychol.* **16**, 561–568 (2010).
29. D. J. Pérez, L. Fortuna, M. Alegria, Prevalence and correlates of everyday discrimination among US Latinos. *J. Community Psychol.* **36**, 421–433 (2008).
30. J. J. Arnett, G. H. Brody, A fraught passage. *Hum. Development* **51**, 291–293 (2008).
31. A. N. Griffith, N. M. Hurd, S. B. Hussain, "I didn't come to school for this": A qualitative examination of experiences with race-related stressors and coping responses among Black students attending a predominantly White institution. *J. Adolesc. Res.* **34**, 115–139 (2019).
32. E. R. McDermott, A. J. Umaña-Taylor, K. H. Zeiders, Profiles of coping with ethnic-racial discrimination and Latina/o adolescents' adjustment. *J. Youth Adolesc.* **48**, 908–923 (2019).
33. R. T. Carter, J. Forsyth, Reactions to racial discrimination: Emotional stress and help-seeking behaviors. *Psychol. Trauma* **2**, 183 (2010).
34. F. X. Gibbons et al., Exploring the link between racial discrimination and substance use: What mediates? What buffers? *J. Pers. Soc. Psychol.* **99**, 785–801 (2010).
35. J. K. Swim, L. L. Hyers, L. L. Cohen, D. C. Fitzgerald, W. H. Bylsma, African American college students' experiences with everyday racism: Characteristics of and responses to these incidents. *J. Black Psychol.* **29**, 38–67 (2003).
36. J. C. Jochman et al., Mental health outcomes of discrimination among college students on a predominantly White campus: A prospective study. *Socius*, 10.1177/2378023119842728 (2019).
37. K. Kirkinis, A. L. Pieterse, C. Martin, A. Agiliga, A. Brownell, Racism, racial discrimination, and trauma: A systematic review of the social science literature. *Ethn. Health* **26**, 392–412 (2021).
38. L. Polanco-Roman, A. Danies, D. M. Anglin, Racial discrimination as race-based trauma, coping strategies, and dissociative symptoms among emerging adults. *Psychol. Trauma* **8**, 609–617 (2016).
39. T. Chou, A. Asnaani, S. G. Hofmann, Perception of racial discrimination and psychopathology across three U.S. ethnic minority groups. *Cultur. Divers. Ethnic Minor. Psychol.* **18**, 74–81 (2012).
40. J. Del Toro, D. Hughes, Trajectories of discrimination across the college years: Associations with academic, psychological, and physical adjustment outcomes. *J. Youth Adolesc.* **49**, 772–789 (2020).
41. M. Hussain, J. M. Jones, Discrimination, diversity, and sense of belonging: Experiences of students of color. *J. Divers. High. Educ.* **14**, 63 (2021).
42. L. L. Hyers, Resisting prejudice every day: Exploring women's assertive responses to anti-Black racism, anti-Semitism, heterosexism, and sexism. *Sex Roles* **56**, 1–12 (2007).
43. C. T. Pittman, Getting mad but ending up sad: The mental health consequences for African Americans using anger to cope with racism. *J. Black Stud.* **42**, 1106–1124 (2011).
44. I. J. Park, L. Wang, D. R. Williams, M. Alegria, Does anger regulation mediate the discrimination-mental health link among Mexican-origin adolescents? A longitudinal mediation analysis using multilevel modeling. *Dev. Psychol.* **53**, 340–352 (2017).
45. E. K. Seaton, R. Upton, A. Gilbert, V. Volpe, A moderated mediation model: Racial discrimination, coping strategies, and racial identity among Black adolescents. *Child Dev.* **85**, 882–890 (2014).
46. A. R. Dixon, E. E. Telles, Skin color and colorism: Global research, concepts, and measurement. *Annu. Rev. Sociol.* **43**, 405–424 (2017).
47. M. Hunter, The persistent problem of colorism: Skin tone, status, and inequality. *Sociol. Compass* **1**, 237–254 (2007).
48. S. R. Bailey, A. Saperstein, A. M. Penner, Race, color, and income inequality across the Americas. *Demogr. Res.* **31**, 735–756 (2014).
49. E. P. Monk Jr., Skin tone stratification among Black Americans, 2001–2003. *Soc. Forces* **92**, 1313–1337 (2014).
50. I. Ryabov, Educational outcomes of Asian and Hispanic Americans: The significance of skin color. *Res. Soc. Stratification Mobility* **44**, 1–9 (2016).
51. G. Veenstra, Mismatched racial identities, colourism, and health in Toronto and Vancouver. *Soc. Sci. Med.* **73**, 1152–1162 (2011).
52. Q. T. Stewart, R. J. Cobb, V. M. Keith, The color of death: Race, observed skin tone, and all-cause mortality in the United States. *Ethn. Health* **25**, 1018–1040 (2020).
53. I. V. Blair, C. M. Judd, M. S. Sadler, C. Jenkins, The role of Afrocentric features in person perception: Judging by features and categories. *J. Pers. Soc. Psychol.* **83**, 5–25 (2002).
54. M. E. Hall, R. D. Williams Jr., T. M. Penhollow, K. E. Rhoads, B. P. Hunt, Factors associated with discrimination among minority college students. *Am. J. Health Behav.* **39**, 318–329 (2015).
55. M. R. Hebl, M. J. Williams, J. M. Sundermann, H. J. Kell, P. G. Davies, Selectively friending: Racial stereotypicality and social rejection. *J. Exp. Soc. Psychol.* **48**, 1329–1335 (2012).
56. K. H. Zeiders et al., Discrimination and ethnic-racial identity: Understanding direction of effects using within-and between-person analyses. *Child Dev.* **90**, e373–e385 (2019).
57. A. J. Umaña-Taylor, D. Vargas-Chanes, C. D. Garcia, M. Gonzales-Backen, A longitudinal examination of Latino adolescents' ethnic identity, coping with discrimination, and self-esteem. *J. Early Adolesc.* **28**, 16–50 (2008).
58. A. M. Landor et al., Exploring the impact of skin tone on family dynamics and race-related outcomes. *J. Fam. Psychol.* **27**, 817–826 (2013).
59. S. P. Harrell, A multidimensional conceptualization of racism-related stress: Implications for the well-being of people of color. *Am. J. Orthopsychiatry* **70**, 42–57 (2000).
60. R. L. Spitzer, K. Kroenke, J. B. Williams, B. Löwe, A brief measure for assessing generalized anxiety disorder: The GAD-7. *Arch. Intern. Med.* **166**, 1092–1097 (2006).
61. L. A. Melchior, G. Huba, V. B. Brown, C. J. Reback, A short depression index for women. *Educ. Psychol. Meas.* **53**, 1117–1125 (1993).
62. P. A. Pilkonis et al.; PROMIS Cooperative Group, Item banks for measuring emotional distress from the Patient-Reported Outcomes Measurement Information System (PROMIS®): Depression, anxiety, and anger. *Assessment* **18**, 263–283 (2011).
63. D. Bates, M. Mächler, B. Bolker, S. Walker, Fitting linear mixed-effects models using lme4. *J. Stat. Soft.* **67**, 1–48 (2015).
64. L. S. Aiken, S. G. West, R. R. Reno, *Multiple Regression: Testing and Interpreting Interactions* (Sage, 1991).
65. J. A. Long, Interactions: Comprehensive, user-friendly toolkit for probing interactions. R Package, Version 1.1.5, 2022. <https://cran.r-project.org/package=interactions>. Accessed 10 August 2022.
66. S. J. Blatt, Contributions of psychoanalysis to the understanding and treatment of depression. *J. Am. Psychoanal. Assoc.* **46**, 722–752 (1998).
67. J. C. Hall, No longer invisible: Understanding the psychosocial impact of skin color stratification in the lives of African American women. *Health Soc. Work* **42**, 71–78 (2017).
68. M. L. Stock, L. M. Peterson, B. K. Molloy, S. F. Lambert, Past racial discrimination exacerbates the effects of racial exclusion on negative affect, perceived control, and alcohol-risk cognitions among Black young adults. *J. Behav. Med.* **40**, 377–391 (2017).
69. R. T. Carter, Racism and psychological and emotional injury: Recognizing and assessing race-based traumatic stress. *Couns. Psychol.* **35**, 13–105 (2007).
70. A. G. T. T. Tran, H.-L. Cheng, J. D. Netland, E. R. Miyake, Far from fairness: Prejudice, skin color, and psychological functioning in Asian Americans. *Cultur. Divers. Ethnic Minor. Psychol.* **23**, 407–415 (2017).
71. V. V. Volpe, A. Beacham, O. Olafunmiloye, Cognitive flexibility and the health of Black college-attending young adults experiencing interpersonal racial discrimination. *J. Health Psychol.* **26**, 1132–1142 (2021).
72. T. C. Bordere, "Social justice conceptualizations in grief and loss" in *Handbook of Social Justice in Loss and Grief*, D. L. Harris, T. C. Bordere, Eds. (Routledge, 2016), pp. 29–40.
73. E. R. McDermott, K. H. Zeiders, A. M. Landor, S. Carbajal, Coping with ethnic-racial discrimination: Short-term longitudinal relations among Black and Latinx college students. *J. Res. Adolesc.* (2022).
74. W. E. B. Du Bois, *The Souls of Black Folk, Essays and Sketches* (AC McClurg & Company, 1904).
75. C. P. Jones, A. Hatch, A. Troutman, "Fostering a social justice approach to health: Health equity, human rights, and an antiracism agenda" in *Health Issues in the Black Community*, R. L. Braithwaite, S. E. Taylor, H. M. Treadwell, Eds. (Jossey-Bass/Wiley, 2009), pp. 555–580.