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Dispositional Coping Profiles Moderate the Links Between Racial Discrimination and Mental Health in Black Americans

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Objectives: Racial discrimination is consistently linked to negative mental health outcomes. However, less is known about how unique patterns of coping in Black Americans experiencing high discrimination stress may moderate the association between discrimination and mental health. The present study uses person-centered methods to identify and describe latent profiles of coping in Black Americans, to understand how these coping profiles are linked to mental health, and to examine whether latent coping profiles moderate the links between discrimination and mental health. **Method:** Participants were Black Americans ($N = 289$; $M_{\text{age}} = 44.87$; 63% women) from the Midlife Development in the United States Milwaukee Refresher study. Latent profile analysis was used to uncover subgroups characterized by distinct patterns of coping strategies. Direct associations between latent profile membership and mental health were examined. Finally, latent profiles were tested as moderators of associations between discrimination and mental health. **Results:** Four profiles of coping responses were identified: passive responders (29% of the sample), evasive responders (15%), diverse responders (17%), and engaged responders (39%). Engaged responders had the lowest prevalence of mental health problems. Further, membership in the engaged responders profile moderated associations between discrimination and mental health, such that the associations between racial discrimination and mental health outcomes were generally stronger in other profiles. **Conclusions:** Person-centered methods uncovered meaningful subgroups characterized by unique coping patterns and pointed to engaged responders as being most resilient to the effects of discrimination. Future research should test these associations longitudinally and examine whether more adaptive coping profiles can be fostered through intervention.

Public Significance Statement

Discrimination is consistently linked to negative outcomes for mental health in racial and ethnic minority individuals, but less is known about how coping profiles may buffer the impact of discrimination stress on mental health. This study identified four unique coping patterns among Black Americans. Coping profile membership moderated associations between discrimination and mental health, suggesting that certain dispositional typologies of coping may be more advantageous than others in buffering discrimination stress.

Keywords: discrimination, coping, mental health, latent class analysis, stress

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Racial discrimination is a chronic stressor for racially minoritized individuals in the United States, particularly for Black Americans (R. T. Carter et al., 2019). Racial discrimination contributes to many deleterious consequences for Black Americans' mental health and emotional well-being, including increased depression (Benner et al., 2018) and anxiety (Soto et al., 2011). Coping strategies may provide one approach to minimizing or attenuating mental health risks of racial discrimination for Black Americans, who suffer from the highest rates of racial discrimination compared to other racial and ethnic minority groups in the United States (Chou et al., 2012). However, currently we have a limited understanding of how distinct coping styles in Black Americans facing high levels of discrimination stress may be linked to negative effects on mental health. Identifying what patterns of coping may moderate the negative impacts of racial discrimination and confer resilience is important, as such work could help guide effective interventions and support strategies that promote better mental health outcomes for Black Americans.

Depression and anxiety are among the most common mental health disorders in Black Americans in the United States (Chen et al., 2019). Lifetime prevalence for depression is around 16% in Black Americans (Lee et al., 2023), with Black Americans experiencing worse consequences as a result of the disorder compared to White Americans, including greater severity (Pederson, 2023), worse chronicity (Williams et al., 2007), and a higher proportion of medical comorbidities (Watkins et al., 2015). In addition, estimates suggest that approximately 20% of Black American adults will experience at least one anxiety disorder during their lifetime, with around half experiencing a persistent form of the disorder (Jones et al., 2022; Vilsaint et al., 2019). Both depression and anxiety have been linked to experiences of racial discrimination (e.g., T. T. Clark et al., 2015; McLeod et al., 2020; Soto et al., 2011) and, more recently, to history of direct or indirect exposure to police force (Motley et al., 2023). Importantly, Black Americans are less likely to receive mental health treatment (Jimenez et al., 2013) and, when they do, are more likely to receive lower quality care (Alang, 2019; Alegria et al., 2016; Lê Cook et al., 2017). Understanding factors that could mitigate associations between racial discrimination and mental health outcomes is thus important.

Coping is one factor that could moderate the impact of discrimination on mental health. Coping strategies refer to the ways individuals respond to stress, and their effectiveness can either diminish or amplify the impact of adversity (Carver & Connor-Smith, 2010). Lazarus and Folkman's (1984) stress and coping theory organized coping strategies in terms of their function: *Problem-focused* coping refers to attempts to engage, act on, or change the actual stressor; while *emotion-focused* coping refers to attempts to manage emotions associated with stressors (Folkman & Moskowitz, 2004; Troy et al., 2023). In addition to these distinctions, researchers have categorized coping strategies according to how individuals orient their attention, with some individuals using *approach* or *engagement* (e.g., problem solving, planning) strategies to deal with stressors directly and others employing *avoidance* or *disengagement* (e.g., denial, distraction) strategies to withdraw from the stressor and conserve resources (Carver et al., 1989; Roth & Cohen, 1986; Troy et al., 2023). Importantly, most individuals use a combination of coping strategies to manage stress, and habitual patterns of responding can be characterized as a

dispositional coping style (Carver & Scheier, 1994; Perez et al., 2023), which has been conceptualized as a trait-level variable.

Most work on dispositional coping (i.e., coping at the trait level) and its outcomes has focused on White Americans, with far fewer studies examining the structure and function of dispositional coping styles in Black Americans. For example, the brief Coping Orientation to Problems Experienced (COPE) Inventory is a commonly used measure of coping that has been highly cited in the literature (e.g., by more than 8,700 reports since its formation based on Google Scholar citations). However, only four studies have examined the structure of the brief COPE in Black Americans to date (Lewis et al., 2017; Pearson et al., 2014; Ruiz et al., 2015; Webb Hooper et al., 2013). These studies suggest a great degree of heterogeneity in the factor structure of the brief COPE, with findings suggesting a range from two (Webb Hooper et al., 2013) to nine factors (Pearson et al., 2014). Importantly, the factors identified differed than those found in White samples. For example, Webb Hooper et al. (2013) identified two factors: One (labeled "adaptive") was characterized by a mix of traditionally problem-focused strategies (e.g., active coping, planning) and emotion-focused strategies (e.g., venting, distraction); the second (labeled "maladaptive") was characterized by denial, disengagement, blame, and substance use. In other words, traditional conceptualizations of dispositional coping styles that apply to White American samples (e.g., problem vs. emotion focused) may not apply to Black Americans, and there is a need for further research to understand heterogeneity in coping strategies used by Black Americans. Heterogeneity in the factor structure of coping suggested by the scant literature on coping in Black Americans may be explained, at least in part, by the ways in which coping factors are associated at the person level. Latent profile analysis (LPA) provides a rigorous way to examine this issue.

In addition to a dearth of research on the structure of coping itself in Black Americans, the literature on the outcomes associated with dispositional coping styles in Black Americans is sparse. Prior work suggests that Black Americans may be more likely to cope effectively with stressors by seeking social support, relying on spirituality, or avoiding the stressor compared to White Americans (Brenner et al., 2018). Few studies have explored within-group variability in coping, which could help to identify what coping styles contribute to mental health in Black Americans. The limited work that has explored these questions has relied almost exclusively on adolescents or college students (Everett et al., 2010; Utsey, Ponterotto, et al., 2000; Williams et al., 2010). In a small convenience sample of Black youth, for example, Scott (2003) found that problem-solving coping strategies varied based on spirituality and optimism. Thus, psychological resources that vary within groups are likely to influence an individual's coping strategies.

Moreover, few researchers have examined what coping strategies are used to manage racial stressors and whether certain coping strategies or combinations of strategies may be more effective. Nevertheless, within this gap, Brown et al. (2011) found that to combat more general stressors, Black Americans relied more on active coping strategies, whereas in response to racism they used more venting and religious supports. Similarly, across 20 days of daily diary, Hoggard et al. (2012) found that when dealing with nonrace-related stressors, Black Americans relied on active coping, such as planning and problem solving. In contrast, when responding to daily instances of racism, they employed a combination of

active approaches (confrontation) and passive strategies (rumination, avoidance). Together, these findings emphasize the diverse coping strategies Black Americans may use to cope with both general stressors and racial discrimination. For example, given the high levels of discrimination stress experienced by Black Americans, dispositional coping patterns that are most adaptive for mental health may involve a varied dispositional coping repertoire. In other words, fluency with a diversity of coping strategies may facilitate coping in Black Americans given their higher overall stress burden and varied sources of stress and, in turn, confer greater mental health benefits compared to overreliance on one particular approach to coping.

Indeed, research is mixed as to what forms of coping are most beneficial for mental health in the context of experiencing racial discrimination. On the one hand, some studies suggest that active coping strategies, such as confronting, are more adaptive than passive strategies, such as denial (e.g., Mekawi et al., 2022). At the same time, more active coping styles, such as “John Henryism”—a high-effort, active coping style often studied in response to race-based stressors (James et al., 1992)—have been associated with greater depression and lower happiness in Black Americans (Angner et al., 2011; Hudson et al., 2016). Thus, there may be longer term costs to active coping styles that are deleterious for mental health over time. While there are limited studies in Black Americans specifically, we can draw from literature on other minoritized groups that suggests passive coping may serve protective functions for individuals facing racial discrimination. In Noh et al.’s (1999) study of 647 South Asian refugees in Canada, participants who used passive acceptance reported decreases in depressive symptoms. Likewise, in a sample of Latine adolescents, Park et al. (2018) found that participants who suppressed their anger when facing racial discrimination experienced fewer adjustment problems than those who used more active coping strategies. Moreover, some studies have suggested that it is the combination of different approaches to coping that is effective for regulating emotional and behavioral responses when experiencing discrimination stress. For example, one study in Latine and Asian American college students found that high levels of *both* reappraisal and suppression was most beneficial for mental health in relation to discrimination (Juang et al., 2016). Given these mixed findings, it is still unclear what the optimal coping approaches are in individuals who experience racial discrimination, and further research is needed on Black Americans, particularly in community adult samples.

Given the heterogeneity of coping strategies in Black Americans, methodological approaches for flexibly modeling within-group variation in dispositional coping patterns are necessary. We propose LPA as a valuable, person-centered approach for identifying subgroups of individuals based on patterns of multiple coping strategies (Lanza, Tan, & Bray, 2013). Because LPA provides a way to identify subgroups accounting for multiple dimensions of coping simultaneously, it could offer novel insights into profile-based variations in the associations between racial discrimination and mental health among Black Americans.

Person-centered approaches, such as LPA, can be contrasted with the more typical variable-centered approaches. Variable-centered approaches assume that identified associations are similar for all members of a population, that is, they are predicated on the assumption that a population is homogeneous with respect to how predictors operate on outcomes. In other words, we know individuals

engage in multiple types of coping, but variable-centered approaches make assumptions that each of these has its own isolated, independent effect that ignores how specific coping strategies may come together in a pattern to impact mental health together. For example, taking a typical two-factor approach to coping (e.g., problem vs. emotion focused), a variable-centered approach would assume that their correlation is the same across all individuals. In other words, everyone that is high on problem-focused coping is also lower on emotion-focused coping (i.e., there is a negative correlation between the two factors). As mentioned, there are numerous reasons to believe these assumptions may not hold in Black Americans, as suggested by prior studies on the factor structure of coping that show a positive correlation between emotion- and problem-focused coping (e.g., Webb Hooper et al., 2013) and the greater diversity of coping responses that may be required of Black Americans to cope with discrimination and other stressors.

In contrast, person-centered approaches, such as LPA, account for the fact that individuals are engaging in multiple coping responses across scales concurrently by parsimoniously categorizing individuals into latent subgroups based on patterns across coping responses. This approach may uncover a variety of latent subgroups—some for which the traditional negative associations between problem- and emotion-focused strategies hold and others of which may exhibit a positive correlation between the two factors. In addition, there is the possibility of uncovering additional response patterns characterized by a combination of different strategies (not constrained to the traditional two-factor conceptualization). In sum, a person-centered approach enables flexible, parsimonious, and simultaneous modeling of all possible interactions across all coping responses; patterns of responses defined by these interactions are summarized by a small set of subgroups each with a unique, interpretable pattern.

Notably, once LPA as a person-centered approach parsimoniously categorizes individuals into latent subgroups based on coping responses, in turn this subgroup membership can be included as a single variable in larger regression models predicting mental health. A variable-centered approach would require a regression model predicting mental health to include main effects for all coping strategies and all possible multiway interaction effects among coping strategies, which is often untenable due to its complexity, large sample size requirements, risk of error rate inflation, and difficulty in interpretation (Lanza et al., 2011). Thus, LPA may provide novel insights on what coping patterns are most beneficial for Black Americans mental health in the context of discrimination stress.

The Present Study

The present study utilized a person-centered approach to address three aims: (1) identify and describe coping profiles among Black Americans, (2) examine the associations between coping profiles and mental health among Black Americans, and (3) examine the moderating role of coping profiles in mitigating associations between discrimination and mental health. First, to address Aim 1, LPA was used to identify subgroups (i.e., latent profiles) of Black Americans characterized by different patterns of multiple coping responses. Second, we tested differences in depression, anxiety, and positive and negative affect across coping subgroups to address Aim 2. We examined affect in addition to diagnoses, as both positive and negative affect play a central role in mental health and well-

being (Fredrickson & Kurtz, 2011), represent important symptoms of both depression (Rottenberg, 2017) and anxiety (Craske et al., 2011), and have been linked to racial discrimination in previous work (Pascoe & Smart Richman, 2009). Finally, to examine the buffering effect of coping subgroups (Aim 3), we tested coping subgroups as a moderator of associations between daily experiences of discrimination and depression, anxiety, and positive and negative affect. The use of a person-centered approach was selected to model heterogeneity in simultaneous coping responses, to connect multi-indicator patterns of individuals' coping with mental health, and to reveal whether complex coping patterns may protect some subgroups of Black Americans, but not others, from the harmful effects of discrimination.

Method

Participants and Procedure

Participants were members of the National Survey of Midlife Development in the United States (MIDUS) Milwaukee Refresher study, which was conducted in 2012–2013. The overall goal of the MIDUS study was to understand the process of midlife development in relation to health and well-being. To increase the number of Black participants, the MIDUS Milwaukee Refresher included additional targeted recruitment and area probability sampling methods to identify potential respondents, resulting in a sample of 508 Black participants. All study procedures were conducted in accordance with ethical protocols for research with human subjects. The MIDUS Milwaukee Refresher survey employed the same assessments (demographic, psychosocial, and physical and mental health) as the original MIDUS study (see Radler, 2014, for full details). Field interviewers screened households to identify Black American adults to achieve sex/age distribution similar to the broader MIDUS sample. Milwaukee respondents were interviewed in their homes using a 2.5-hr Computer-Assisted Personal Interview (CAPI) protocol, and afterward, they were asked to complete a mail-in Self-Administered Questionnaire (SAQ). For MIDUS refresher Milwaukee sample survey project, respondents received \$50 in cash after completing the CAPI interview; they were then mailed a \$20 check after their completed SAQ was received. Participants completed clinical interviews for depression and anxiety, as well as completing measures of discrimination and affect during the CAPI, whereas coping was reported in the SAQ. Of the 508 participants, 507 completed the CAPI and 294 completed the SAQ. Of the 294 who completed both the CAPI and SAQ, 289 had complete data for all measures of interest. Thus, the current analytic sample was $N = 289$. Table 1 displays demographic characteristics of the analytic sample including sex, age, income, and education level.

Measures

Coping Indicators

The MIDUS used an abbreviated version of the COPE Inventory (Carver et al., 1989) that included 26 items across seven subscales from the original inventory. The subscales included Positive Reinterpretation and Growth, Active Coping, Planning, Focus On and Venting of Emotion, Denial, Behavioral Disengagement, and Using Food to Cope. Participants reported how they generally

Table 1
Demographic Information for the Analytic Sample

Demographic characteristic	<i>M</i> or <i>N</i>	<i>SD</i> or %
Age	44.87	10.99
Gender (% women)	185	62.70
Total income		
Less than \$10,000	70	23.70
\$10,000–\$14,999	22	7.50
\$15,000–\$24,999	39	13.20
\$25,000–\$49,999	83	28.10
\$50,000–\$99,999	58	19.70
\$100,000–\$149,999	13	4.40
\$150,000–\$199,999	7	2.40
\$200,000 or more	1	0.30
Education level		
Less than HS or HS diploma/GED	128	43.4
Some college	119	40.3
4-year college degree or higher	48	16.3

Note. Means and standard deviations are given for all continuous variables (age), whereas frequency and percent are given for all categorical variables. Total income was indexed as the sum of all income sources for each participant. Education levels were coded as follows: 1 = lower than high school up through high school completion or equivalent (GED); 2 = at least some college (2-year degree or some college but no degree); 3 = 4-year degree (BA/BS) or higher (MD, PhD, JD, MBA, MS, MA). HS = high school; GED = general equivalency diploma.

respond to stressful events on a 4-point scale (1 = *not at all*, 4 = *a lot*) for each item. The COPE Inventory has demonstrated good psychometric properties across both the full and brief versions, as indicated by convergent and discriminant validity and high internal consistency and test–retest reliability (0.46–0.86; Carver, 1997; Carver et al., 1989). The original COPE has a 15-factor structure, while the brief COPE has demonstrated 14 first-order factors (Carver, 1997; Carver et al., 1989). Seven factors from the original scale are represented in the present study, which were the only ones collected in the MIDUS data set. Subscales were summed across four items (two items for Using Food to Cope) and then mean centered before analysis. We opted to use subscales instead of item-level data given our interest in identifying relationships across coping scales instead of coping items. Subscales demonstrated high reliability ($\alpha = .70$ –.90) in the present study.

Racial Discrimination

Racial discrimination was measured with nine items from the Everyday Discrimination Scale assessing the frequency of discrimination experienced by respondents on a daily basis (Williams et al., 1997). The Everyday Discrimination Scale has demonstrated high reliability and validity and a unidimensional-factor structure (R. Clark et al., 2004; Krieger et al., 2005; Stucky et al., 2011). Items included “People act as if they think you are not smart,” and “You are threatened or harassed” (1 = *never*, 4 = *often*). Participants were then asked to attribute this discrimination to race, age, gender, weight, or something else. We limited our analysis to those that endorsed race as the reason for discrimination. Scores were summed across the nine items and sample mean centered before analysis ($M = 13.87$, $SD = 5.94$; $\alpha = .92$).

Depression and Anxiety

Depression and anxiety were measured using the World Health Organization Composite International Diagnostic Interview Short-Form (CIDI-SF; Kessler et al., 1998). The CIDI-SF is a fully structured, clinical diagnostic interview used to assess both depression and anxiety based on the *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed., revised) and the *International Statistical Classification of Diseases and Related Health Problems* (10th ed.). Through progressive branch logic, participants arrive at final yes/no binary diagnoses of major depressive disorder (MDD) and generalized anxiety disorder (GAD). Forty-six participants (15.6%) met criteria for MDD, and 25 participants (8.5%) met criteria for GAD, aligned with national prevalence rates of MDD and GAD for Black Americans (Asnaani et al., 2010; Sohail et al., 2014). The CIDI-SF MDD and GAD scales have shown high internal consistency, strong test-retest reliability, and high sensitivity (89.6%–96.6%) and specificity (93.9%–99.8%; Kessler et al., 1998).

Negative and Positive Affect

Negative affect and positive affect were measured with the Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988), which asks about past-month frequency of 14 negative (e.g., “so sad nothing could cheer you up,” “worthless,” “nervous”) and 14 positive (e.g., “happy,” “cheerful,” “full of life”) affective states rated on a 5-point Likert scale (1 = *none of the time*, 5 = *all of the time*). Items were averaged to create negative affect ($M = 1.97$, $SD = 0.82$; $\alpha = .91$) and positive affect ($M = 3.50$, $SD = 0.85$; $\alpha = .93$) scale scores. The Positive and Negative Affect Schedule has demonstrated strong psychometric properties and a two-factor structure in both White (e.g., Watson & Walker, 1996) and Black samples (e.g., Merz et al., 2013).

Analysis Plan

Data analysis proceeded through the recommended classify-analyze multistep process for identifying latent profiles and their associations with outcomes (Dziak et al., 2016). First, LPA was used to select the optimal number of latent profiles (i.e., subgroups) and then to identify and describe subgroups based on distinct patterns of coping responses. Then, using modal profile assignment based on posterior probabilities and measurement error-based weighting (Bolck, Croon, and Hagnaars approach; Bakk & Vermunt, 2016; Bolck et al., 2004), we examined differences across coping profiles in depression, anxiety, and positive and negative affect. Next, associations between racial discrimination and mental health outcomes were confirmed using multivariable logistic (depression, anxiety) and linear (affect) regression. Finally, to examine whether coping profiles protected against harmful effects of racial discrimination, latent profile membership was added to multivariable regression models as a moderator of the direct associations between racial discrimination and mental health (using the Bolck, Croon, and Hagnaars approach; see Bray et al., 2023). Model estimation using maximum likelihood with robust standard errors was conducted in Mplus (Version 7.4; L. K. Muthén & Muthén, 1989–2018), and model identification for all models was checked using 1,000 initial stage starts and 500 final stage starts.

To select the optimal latent profile model, the following criteria were considered: Akaike information criterion (AIC; Akaike, 1974), Bayesian information criterion (BIC; Schwarz, 1978), sample-size-adjusted BIC (a-BIC; Sclove, 1987), Bootstrapped Likelihood Ratio Test (BLRT; Dziak et al., 2016; Nylund et al., 2007), entropy (B. O. Muthén, 2004), and theoretical interpretability and model stability (Lanza, Tan, & Bray, 2013). Lower AIC, BIC, and a-BIC values indicated more optimal model fit, and higher entropy values indicated higher classification utility (Lanza, Bray, & Collins, 2013). The significance of the bootstrapped likelihood ratio tests indicated whether each successive model with k profiles, compared to a model with $k-1$ profiles, resulted in a significant improvement in model fit (Nylund et al., 2007). To interpret and describe the latent profiles, two sets of parameters were examined: (1) latent profile membership probabilities that represent profile prevalences in the sample and (2) coping item means (and variances) conditional on profile. Latent profile separation (i.e., distinction between profiles as unique patterns; Collins & Lanza, 2009) was determined by comparing item means between profiles and in contrast to the overall means, including formal significance tests of differences and visual/manual comparison across profile patterns holistically. The patterns of item means were used to interpret and name the profiles. To integrate latent profiles into multivariable linear and logistic regression models, we used the recommended three-step Bolck, Croon, and Hagnaars approach (Bakk & Vermunt, 2016): (1) Fit a latent profile model, (2) assign participants to their most likely (i.e., modal) latent profile based on posterior probabilities, and (3) treat profile membership as a known categorical variable in outcome analyses with specialized adjustment for error introduced by profile assignment. This approach allowed us to test differences in mental health outcomes across coping profiles; results are presented as pairwise comparisons of mental health prevalences (depression, anxiety) and means (affect) across profiles. These models were extended to examine latent profile membership as a moderator of the associations between racial discrimination and mental health through an interaction between latent profile membership and racial discrimination.

Results

What Is the Latent Profile Structure of Coping in Black Americans?

Descriptive statistics for coping, racial discrimination, and mental health outcomes are presented in Table 2. For latent profile model selection, models with one to eight profiles were considered. As shown in Table 3, the AIC and a-BIC continued to decrease without minimization as additional profiles were added, which is a common occurrence with LPA (e.g., Bray et al., 2014), and the BIC was approximately equal for models with six to eight profiles. BLRT values indicated that adding profiles improved model fit through the four-profile model ($p = .046$), but there were no significant improvements from the four- to five-profile model ($p = .30$). Meaningful reductions in fit criteria slowed for models with four or more profiles. Thus, the stability of the latent measurement structure (i.e., item-level means) and separation of latent profiles were considered for models with four to eight profiles. In the four-profile model, three profiles had emerged and remained stable across the one- to three-profile models, and the fourth profile to emerge was characterized by higher-than-average scores on denial and behavioral

Table 2*Descriptive Statistics for Coping Indicators, Discrimination, and Mental Health Outcomes*

Variable	<i>M (SD) or N (%)</i>	Min.	Max.
Coping indicator			
Positive reinterpretation and growth	13.14 (2.48)	4	16
Active coping	12.82 (2.31)	4	16
Planning	13.39 (2.43)	4	16
Focus on venting of emotion	9.62 (3.09)	4	16
Denial	7.57 (3.20)	4	16
Behavioral disengagement	7.41 (2.99)	4	16
Using food to cope	3.99 (1.96)	2	8
Discrimination and continuous MH outcomes			
Discrimination	13.94 (5.94)	9	36
Negative affect	1.97 (0.82)	1	5
Positive affect	3.50 (0.85)	1	5
Binary MH outcomes			
Depression diagnosis	46 (15.6)		
Anxiety diagnosis	25 (8.0)		

Note. Means (and standard deviations) are given for all continuous variables; frequency and percent are given for all binary variables. Min. = minimum; Max. = maximum; MH = mental health.

disengagement coping, coupled with lower-than-average scores on positive reinterpretation and growth, active coping, and planning. This profile was considered distinct from the other profiles in that it was the only profile exhibiting this pattern. Supporting the BLRT results that a fifth profile did not improve model fit, the fifth profile to emerge was conceptually redundant to one of the profiles that emerged in the four-profile model and remained stable across all larger models. Increasing model complexity by adding a sixth or greater profile resulted in more redundancy among profiles and multiple profiles with less than 6% of the sample, yielding subgroup sample sizes with insufficient power for comparison between profiles. To further examine latent class separation for the four-profile model, significant differences were considered for profile-specific item-level means compared to overall sample means and to other profiles; these tests supported

Table 3*Model-Fit Information and Selection Criteria for Latent Profile Models With One to Eight Profiles*

No. of profiles	<i>df</i>	AIC	BIC	a-BIC	BLRT (<i>p</i> value)	Entropy
1	14	9630.27	9681.60	9637.21	N/A	1.00
2	22	9256.28	9336.94	9267.17	<.0001	0.87
3	30	9026.51	9136.50	9041.37	.020	0.88
4	38	8920.92	9060.24	8939.74	.046	0.86
5	46	8845.05	9013.71	8867.83	.300	0.86
6	54	8796.16	8994.15	8822.90	.260	0.86
7	62	8762.34	8989.66	8793.05	<.0001	0.87
8	70	8734.07	8990.72	8768.74	<.0001	0.88

Note. *N* = 289. Bold values indicate the selected latent profile model. All average latent profile probabilities for most likely latent class membership were $\geq .80$ for the selected model. AIC = Akaike information criterion; BIC = Bayesian information criterion; a-BIC = sample-size-adjusted Bayesian information criterion; BLRT = Bootstrapped Likelihood Ratio Test; N/A = not applicable.

qualitatively distinct profiles (see Table 3). Thus, we considered the four-profile model optimal for interpretation and further analysis.

Profile prevalences and item means conditional on the four profiles are presented in Table 4. Prototypical members of the first profile, named engaged responders (39% prevalence), had significantly higher than average levels of positive reinterpretation and growth, active coping, and planning and significantly lower than average levels of venting of emotion, denial, disengagement, and using food to cope. Prototypical members of the second profile, named evasive responders (29%), had significantly higher than average levels of denial and disengagement and significantly lower than average levels of positive reinterpretation, active coping, and planning. Prototypical members of the third profile, named passive responders (15%), had a pattern of coping behaviors characterized by significantly lower than average levels of all types of coping, excluding using food to cope. Prototypical members of the fourth profile, named diverse responders (17%), had a coping pattern uniquely characterized by average (positive reinterpretation and growth and planning) or above average (active coping, focus on venting of emotion, denial, behavioral disengagement, and using food to cope) levels of every coping response. A visual depiction of these profiles is available in Figure 1. To explore demographic predictors of coping profiles, we tested the effects of sex, age, and income as predictors of profile membership using a three-step procedure (i.e., R3STEP auxiliary command in Mplus; Asparouhov & Muthén, 2014). For LPA with covariates, this allows the estimation of the change in log odds of belonging to classes compared to a reference class for a given covariate, controlling for the other covariates. Sex and age were not significant predictors of profile membership relative to the engaged responders profile. Higher income was associated with lower odds of profile membership in the passive responders ($OR = 0.72$, 95% confidence interval, CI, [0.56, 0.93]) and diverse responders ($OR = 0.70$, 95% CI [0.56, 0.89]) profiles, relative to the engaged responders profile.

Is Profile Membership Related to Mental Health Outcomes?

Table 5 and Figure 2 show the prevalences and means of the mental health outcomes for each coping profile, as well as significant pairwise differences between profiles. Overall, there were significant differences across coping profiles for depression ($\chi^2 = 12.12$, $p = .007$), anxiety ($\chi^2 = 12.12$, $p = .007$), and mean positive ($\chi^2 = 28.62$, $p < .001$) and negative ($\chi^2 = 53.89$, $p < .001$) affect. Specifically, engaged and passive responders had the lowest rates of mental health diagnoses, lowest negative affect, and highest positive affect (as shown in Figure 2). Engaged responders had significantly lower prevalence (13%) of depression than evasive (23%) and diverse (30%) responders. In addition, passive responders (13%) had lower prevalence of depression than diverse responders. Prevalence of anxiety was lower for engaged (3%) and passive (4%) responders compared to diverse responders (21%). Mean negative affect was lower in both engaged (1.63) and passive (1.68) responders compared to evasive (2.56) and diverse (2.48) responders. Mean positive affect was higher for engaged responders (3.79) compared to all other profiles: evasive (2.93), passive (3.51), and diverse (3.30). In addition, evasive responders had significantly lower positive affect compared to passive responders.

Table 4
Parameter Estimates for the Four-Profile Model

Coping indicator	Sample mean	Latent profile membership probability			
		1. Engaged responder	2. Evasive responder	3. Passive responder	4. Diverse responder
		Conditional item means			
		0.39 <i>n</i> = 112	0.29 <i>n</i> = 84	0.15 <i>n</i> = 44	0.17 <i>n</i> = 50
Positive reinterpretation and growth	13.14	1.542*	−2.963*	−0.842*	0.553
Active coping	12.82	1.703*	−3.22*	−0.923*	0.553*
Planning	13.39	2.021*	−4.172*	−0.686*	0.274
Focus on and venting of emotion	9.62	−0.845*	0.308	−0.826†	3.019*
Denial	7.57	−1.255*	1.337*	−1.641*	4.412*
Behavioral disengagement	7.41	−1.886*	2.09*	−1.045*	4.164*
Using food to cope	3.99	−0.856*	0.517	−0.353	2.062*

Note. *N* = 289. Significance tests are relative to the overall sample mean.

† *p* < .10. * *p* < .05.

Do Coping Profiles Moderate the Associations Between Discrimination and Mental Health?

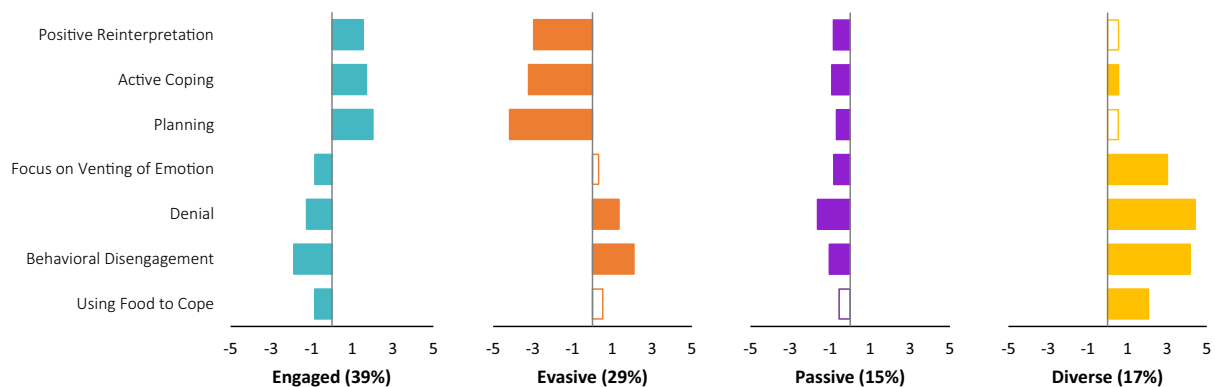
Before conducting latent profile moderation analyses, we confirmed associations of racial discrimination with mental health outcomes, as evidenced by prior research (e.g., Williams et al., 1997). More frequent racial discrimination was significantly associated with greater odds of depression ($OR = 1.09$, $p < .001$), higher negative affect ($\beta = .22$, $p < .001$), and lower positive affect ($\beta = -.20$, $p < .001$).

Table 6 shows results of moderated logistic and linear regression models with engaged responders as the referent, that is, effects of membership in the diverse, passive, and evasive responders profiles on mental health and affect were in comparison to membership in the engaged responders profile. All models were adjusted for participant sex, age, and income.

Profile membership moderated the associations of racial discrimination with depression, negative affect, and positive affect but not anxiety. The association between racial discrimination and odds of depression was weaker for the engaged responders compared to all

other profiles, such that higher levels of racial discrimination were not associated with higher odds of depression in this profile only. Compared to engaged responders, at higher frequencies of discrimination, the odds of depression diagnosis were higher for evasive ($OR = 1.04$, 95% CI [1.02, 1.06]), passive ($OR = 1.03$, 95% CI [1.00, 1.05]), and diverse ($OR = 1.04$, 95% CI [1.02, 1.06]) responders. In contrast to depression, latent profile membership did not moderate the association of racial discrimination with odds of anxiety. Compared to engaged responders, the association of racial discrimination with level of negative affect was stronger for evasive ($\beta = 0.07$, $p < .001$) and diverse responders ($\beta = 0.08$, $p < .001$), such that negative affect was higher at higher frequencies of racial discrimination. The association between racial discrimination and negative affect did not differ between engaged and passive responders. Although positive affect was lower on average in all profiles compared to engaged responders, the association of discrimination with positive affect was stronger only for evasive responders, such that more frequent discrimination was associated with lower positive affect ($\beta = -0.04$, $p = .036$).

Figure 1
Estimated Latent Profile Structures and Profile Membership Sizes



Note. *N* = 289. Indicators are mean-centered based on the full sample mean. Bars without color fill indicate nonsignificant differences from the overall sample means. See the online article for the color version of this figure.

Table 5

Prevalences and Means (and Standard Errors) of Mental Health Outcomes for Each Coping Profile and Pairwise Comparisons Between Profiles

Mental health outcome	Profile 1: Engaged responder	Profile 2: Evasive responder	Profile 3: Passive responder	Profile 4: Diverse responder	Pairwise comparison
Depression (Dx)*	0.07 (.03)	0.23 (.07)	0.13 (.04)	0.30 (.07)	1 < 2, 4; 3 < 4
Anxiety (Dx)*	0.03 (.02)	0.11 (.05)	0.04 (.03)	0.21 (.06)	1, 3 < 4
Negative affect*	1.73 (.06)	2.56 (.17)	1.68 (.08)	2.48 (.12)	1, 3 < 2, 4
Positive affect*	3.79 (.08)	2.93 (.16)	3.51 (.09)	3.30 (.13)	2, 3, 4 < 1; 2 < 3

Note. $N = 289$. Dx = diagnosis.

*Omnibus Test is significant at $p < .05$.

In summary, compared to engaged responders, more frequent discrimination was associated with (a) greater odds of depression diagnosis, higher negative affect, and lower positive affect for evasive responders; (b) greater odds of depression for passive responders; and (c) greater odds of depression and higher negative affect for diverse responders.

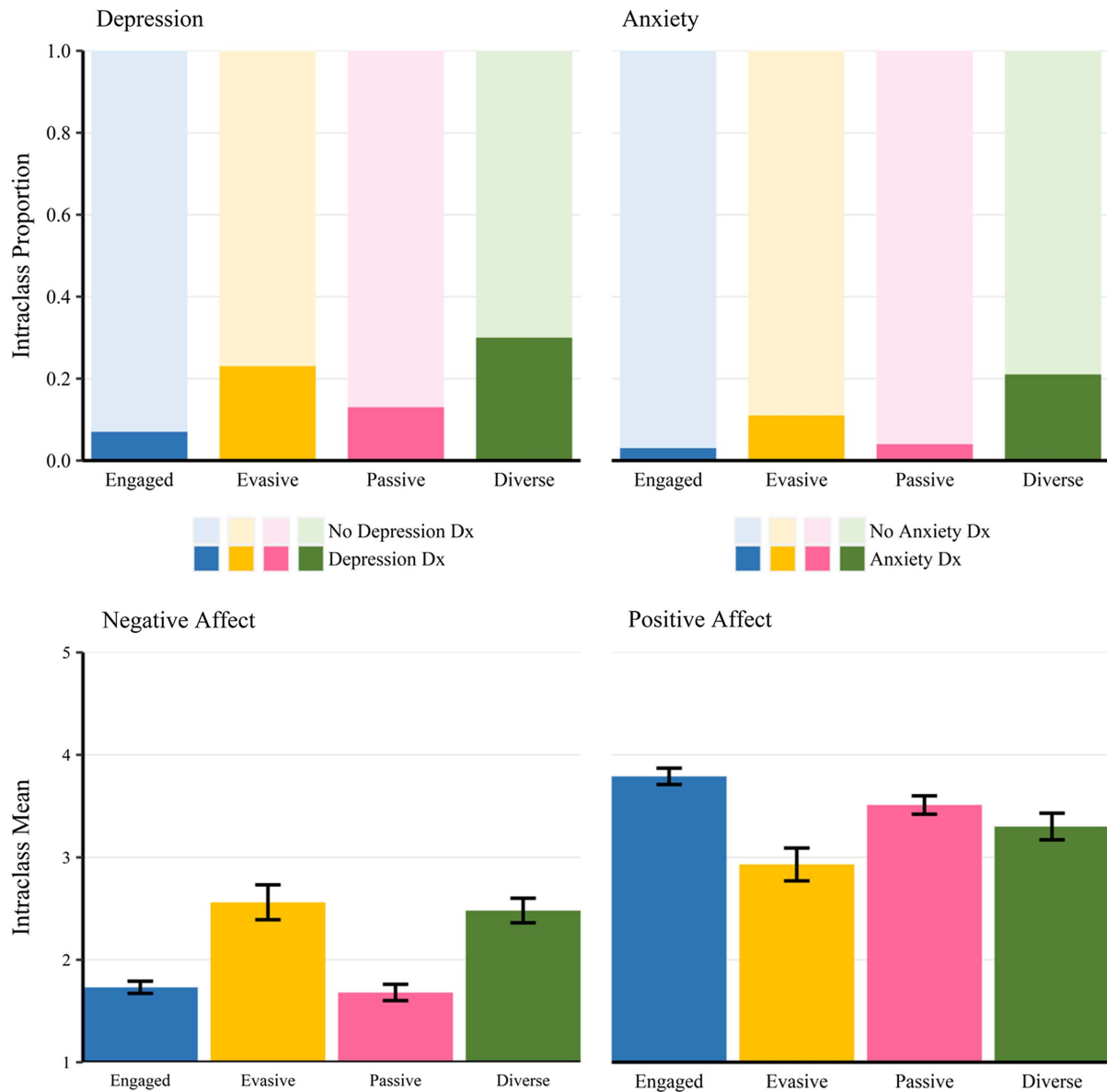
Discussion

The present study sought, first, to identify and describe subgroups indicated by patterns of coping strategies among Black Americans, a population that experiences high rates of racial discrimination stress (R. Clark et al., 1999). Following identification of coping profiles, associations between profiles and mental health were examined, as well as whether these profiles moderated associations between racial discrimination and mental health outcomes. Using LPA, four distinct latent profiles of coping were identified; in turn, profile membership was meaningfully associated with mental health outcomes. Profiles characterized by high responding on most coping responses (i.e., diverse responders) and by high levels of denial and behavioral disengagement responses (i.e., evasive responders) were considered less adaptive because they were associated with more mental health problems, whereas profiles characterized by higher levels of positive reinterpretation and growth, active coping, and planning responses (i.e., engaged responders) and lower levels of denial and disengagement responses (i.e., passive responders) were considered more adaptive. Furthermore, moderation analysis revealed that coping profiles moderated the associations between daily experiences of discrimination and select mental health outcomes.

The person-centered analytic approach taken in this study facilitates examination of differences among patterns of coping beyond the typical coping binary (e.g., approach vs. avoidant; problem vs. emotion focused), thereby adding to the literature on coping in Black Americans by demonstrating unique subgroups of dispositional coping responses characterized by differing patterns of relationships among coping strategies. For example, it is notable that 32% of the participants in our sample displayed coping patterns that did not fit the typical approach/avoidance coping binary, as evidenced by the passive and diverse responders where within-profile correlations across the typical factors were positive. These findings dovetail with factor analytic studies that suggest the coping binary may not fit as well in Black samples (e.g., Webb Hooper et al., 2013), and they suggest that a person-centered approach may allow researchers to more adequately capture the heterogeneity of

dispositional coping in Black Americans. In addition, dispositional coping profiles were meaningfully linked to mental health. Instead of active coping being consistently associated with better mental health across the board, as would be suggested by variable-centered approaches, our findings suggest that active coping was only associated with better mental health in the subgroup of Black Americans who combined active coping with high levels of positive reinterpretation and growth as well as planning (i.e., Engaged Responders). Among diverse responders (the other subgroup characterized by high active coping), active coping did not appear to confer mental health benefits based on the diverse responders having higher rates of depression and greater negative affect. These findings suggest that there may be particular benefit to planning out one's responses coupled with reappraisal, rather than direct action (e.g., confronting), to enhance the effectiveness of active coping. For example, while some research suggests that active coping is beneficial for mental health in Black Americans (Mekawi et al., 2022), others (e.g., Gibbons et al., 2010; Park et al., 2018) found that active strategies—like confronting racism directly with a perpetrator—can produce increased risk of poor mental health and adjustment issues when it does not lead to a resolution of the racial discrimination. Accordingly, weighing the risks and benefits when considering possible outcomes (i.e., planning) before acting could help protect Black Americans' mental health in situations that are less amenable to change. Furthermore, combining action with reappraisal and reinterpretation may provide or enhance opportunities for meaning making (Wexler et al., 2009), regardless of the behavioral outcomes of active coping. Moreover, dispositional coping profile membership moderated associations between racial discrimination and mental health, suggesting that certain typologies of coping may be more advantageous than others in the context of discrimination stress. Specifically, greater likelihood of depression and higher negative affect among diverse responders could be interpreted as greater vulnerability to the effects of racial discrimination compared to engaged responders. Findings add to the literature on mixed coping responses in Black Americans (e.g., Hoggard et al., 2012) by suggesting that, though these mixed responses are common (17% of the current sample), they may not be the most beneficial for mental health in buffering discrimination stress. In addition, although prior work has suggested that passive coping responses could be protective for some individuals (Noh et al., 1999), passive responders had higher depression compared to engaged responders. Findings add to the prior literature by suggesting that having an overall passive dispositional coping tendency may not help to protect individuals against the negative impacts of

Figure 2
Intraclass Proportions and Means for Each Profile



Note. Top half: depression and anxiety; bottom half: negative and positive affect. Dx = diagnosis. See the online article for the color version of this figure.

discrimination stress, and they suggest that overreliance on passive coping strategies may not be advisable for Black Americans.

Although coping profiles moderated associations between discrimination and depression, coping profiles did not moderate associations between discrimination and anxiety. There are several possible ways to interpret these findings. Fear and anxiety are natural emotions that constitute adaptive responses when facing real danger (Ekman, 1992; Pittig et al., 2018). Given the real threats that racial discrimination poses for Black Americans' physical and mental health, it is possible that having some amount of anxiety when experiencing high levels of discrimination is

adaptive. For example, DeLapp and Williams (2019) proposed a proactive coping model for racial discrimination that included anxiety as a key component for increasing vigilance to threats in preparation for adaptive coping responses to discrimination. Thus, individuals with a more psychologically "healthy" coping profile (e.g., engaged responders) may not demonstrate reduced anxiety when discrimination is high, even though they would demonstrate lower anxiety overall compared to others. Such an interpretation would be in line with some literature on ethnic-racial socialization, which suggests that Black American youth who receive "preparation for bias" messaging from their parents are better prepared to

Table 6

Summary of Moderation Analyses for Coping Profiles as Moderators of the Associations Between Discrimination and Mental Health Outcomes

Predictor variable	Depression	Anxiety	Negative affect	Positive affect
	OR [95% CI]	OR [95% CI]	β (SE)	β (SE)
Intercept	1.32 [1.09, 1.62]**	1.03 [0.88, 1.20]	2.19 (0.20)***	3.79 (0.23)***
Sex	1.00 [0.92, 1.08]	1.03 [0.97, 1.09]	0.02 (0.09)	0.11 (0.10)
Age	1.00 [0.99, 1.00]	1.00 [1.00, 1.00]	0.00 (0.00)	0.00 (0.00)
Income	0.98 [0.96, 1.01]	0.98 [0.96, 1.00]	-0.10 (0.03)***	0.04 (0.03)
Discrimination	1.00 [0.99, 1.01]	1.00 [1.00, 1.01]	0.00 (0.01)	-0.02 (0.01)
Coping profile				
Engaged (referent)				
Diverse	0.81 [0.71, 0.93]**	0.84 [0.74, 0.95]**	-0.68 (0.13)***	0.47 (0.16)**
Passive	0.92 [0.82, 1.03]	0.99 [0.93, 1.06]	0.01 (0.10)	0.33 (0.12)**
Evasive	0.87 [0.76, 1.00]*	0.93 [0.83, 1.04]	-0.80 (0.17)***	0.83 (0.17)***
Moderation				
Discrimination \times Diverse	1.04 [1.02, 1.06]***	1.01 [0.99, 1.04]	0.08 (0.02)***	-0.03 (0.03)
Discrimination \times Passive	1.02 [1.00, 1.05]*	1.00 [0.98, 1.01]	0.03 (0.02)	-0.02 (0.03)
Discrimination \times Evasive	1.04 [1.02, 1.06]***	1.00 [0.98, 1.02]	0.07 (0.03)**	-0.05 (0.02)*

Note. $N = 289$. Effects of profiles are in reference to engaged responders. 95% CI = 95% confidence interval; SE = standard error.

* $p < .05$. ** $p < .01$. *** $p < .001$.

cope with discrimination and have a healthier psychological profile overall (Hughes et al., 2006) but also report greater altness to discrimination (Stevenson et al., 2002). Alternatively, the particular coping indicators used here may be more relevant to depressive but not anxious symptoms in relation to discrimination. For example, many of the more adaptive coping responses considered here may lend themselves to behavioral activation for depression, whereas a more worry-specific intervention may be needed to mitigate the effects of discrimination on anxiety. Future research could test these different possibilities using experimental designs.

Finally, when considering the sociocultural context of coping and mental health outcomes of Black Americans in Milwaukee, it is imperative to recognize the profound influence of racial segregation and structural racism. According to the U.S. Census Bureau (2020), Milwaukee remains one of the most segregated cities in the country. Residential segregation has been a persistent feature of Milwaukee's socio-geographic landscape, and studies have consistently demonstrated correlations between residential segregation and adverse mental health outcomes (P. M. Carter & Zimmerman, 2022), emphasizing the importance of contextualizing our findings within this broader framework. Structural racism, manifested through discriminatory policies and practices, further amplifies the challenges faced by individuals residing in racially segregated neighborhoods (Paradies et al., 2015). The enduring legacy of historical injustices contributes to the perpetuation of socioeconomic disparities, limited access to resources, and heightened exposure to environmental stressors. Understanding coping mechanisms within this context necessitates an exploration of how individuals navigate and negotiate these systemic barriers. As such, engaged responders may take on a unique significance within racially segregated environments. The adaptive strategies these individuals develop in response to systemic challenges become crucial components of their coping repertoire and may lead them to engage in efforts such as community mobilization, collective resilience building, and the forging of social networks that serve as sources of support and empowerment. Thus, an important future direction for this work is further in-depth

examinations of how a pattern of engaged coping transpires in racially segregated neighborhoods to gain a better understanding of specific strategies employed by Black Americans in racially segregated context.

Overall, these findings point to the potentially protective nature of specific profiles of coping to buffer discrimination experiences among Black Americans. It may be particularly important to increase active coping along with reappraisal and planning to reap the mental health benefits of active coping. In addition, simultaneously targeting reductions in denial and behavioral disengagement may be warranted. An exciting avenue for future research is to determine whether dispositional coping profiles are amenable to change through targeted interventions. Prior work has shown that problem-focused coping can be increased through intervention (Folkman et al., 1991), but less work has examined how interventions may translate to person-centered patterns of coping and how interventions can be culturally adapted to suit Black Americans who experience high levels of discrimination stress. Given the present findings and taking into account prior findings on culture-specific coping, a three-pronged approach of reducing denial and disengagement coping responses and increasing more planning, reappraisal, and active coping while incorporating Africultural coping responses (e.g., Utsey, Adams, & Bolden, 2000) could be most beneficial.

Limitations

This study represents one of the first investigations of the latent structure of coping in a large sample of community-dwelling Black adults, and it has several strengths, including a person-centered analytic approach to characterize coping and the use of well-validated diagnostic measures of depression and anxiety. However, several limitations warrant mention. First, the present study can only speak to dispositional coping patterns and does not assess situational coping. Given the extensive literature on distinctions between dispositional and situational coping (e.g., Brown et al., 2011), future research should examine the extent to which situational coping

profiles display similar patterns and across what kinds of situations. Nevertheless, the present study is the first investigation of dispositional coping patterns as moderators of discrimination and mental health links in Black Americans and offers a novel methodological approach that could be employed in future work using situational measures. Second, as the present investigation employed a cross-sectional design, directionality cannot be ascertained from the current design. While prior studies have established causal links between discrimination and mental health (e.g., English et al., 2014), links between coping and mental health are often found to be bidirectional (e.g., Richardson et al., 2021). Consequently, it is important to follow up the present study with longitudinal data to examine causal relationships between coping and mental health. Nevertheless, identifying links between coping patterns and mental health in Black Americans provides an important first step in this work. In addition, the derived profiles should be replicated in independent samples, and caution is warranted in overgeneralizing findings from the present study until independent replication studies are performed. Even so, given the dearth of studies examining the underlying structure of the brief COPE in all-Black samples, we believe our findings have value, and we hope that they can serve as an initial step in further examination of coping structures using additional samples in the future. Finally, the structure of coping identified is limited to the seven types of coping measured in the MIDUS study, and these results do not account for culture-specific coping strategies which have been shown to be important in prior work. Additional Africultural coping styles, such as John Henryism (e.g., Hudson et al., 2016), identity affirmation (Anderson et al., 2019), collective coping and social support (e.g., seeking advice from elders, connecting with and drawing support from the Black community; Elligan & Utsey, 1999), activism/civic engagement (Riley et al., 2021), and Afrocentric spiritual practices (e.g., connecting to ancestors; Beagan et al., 2012), are important coping strategies to consider in the context of Black American life and should be included in future investigations to capture the full range of possible coping dispositions.

Conclusion

The chronic and widespread nature of racial discrimination highlights the need to study unique dispositional coping styles that may arise in Black Americans. The present study offers a key investigation of dispositional coping profiles in community-dwelling Black adults in the United States, thereby contributing to the knowledge base on the structure of coping in Black Americans. Moreover, by identifying associations with mental health and the potential benefits of distinct coping typologies in attenuating the links between racial discrimination and mental health, the present investigation provides novel insights into the coping patterns that may be most adaptive in the context of high discrimination stress.

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