Race and Social Problems (2024) 16:198–210
https://doi.org/10.1007/s12552-023-09401-x

Do Resilience and Social Support Moderate the Association between Race-Related Stress on Black Women's Reports of Trauma Symptoms?

Tiffany R. Williams[1] · Christy L. Erving[2] · Fanchen Gao[1] · Taeja Mitchell[1] · Claire Muwele[1] · Reniece Martin[1] · Miaya Blasingame[3] · Dana Jennings[1]

Accepted: 17 September 2023 / Published online: 18 October 2023

Abstract
Black women uniquely experience a myriad of intersecting oppressions along with racial discrimination that increases their vulnerability to trauma. Experiences of racial discrimination manifest as race-related stress, or worse an emotional wound, race-related trauma. Protective factors that facilitate coping for black women are resilience and social support. Under investigation were black women's experiences of racial stress, specifically, perseverative cognition (PC) and anticipatory race-related stress (ARRS), and trauma symptoms. PC and ARRS derive from the Prolonged Activation and Anticipatory Race-Related Stress Scale. The moderating effects of resilience and social support were also examined. Data were collected from 216 black female students at a Historically Black College or University. The findings indicate (1) PC was associated with higher trauma symptoms ($\beta = 4.46$; $p < .001$); (2) ARSS was positively associated with trauma symptoms ($\beta = 4.82$; $p < .001$); (3) Social support ($\beta = -2.04$; $p < .001$) and resilience ($\beta = -2.80$; $p < .05$) moderated the association between ARRS and trauma symptoms such that the association between racial stress and trauma symptoms was stronger under the condition of low social support and resilience. Treatment must include culturally relevant interventions and capitalize on protective factors to facilitate healing for black women.

Keywords Race-related stress · Traumatic stress · Social support · Resilience · Black women

Racial discrimination continues to be one of the most significant stressors theorized to cause distress in black Americans (Mekawi et al., 2022; Odafe et al., 2017; Utsey et al., 2012). Historically, black Americans report more frequent discrimination than most other ethnic groups (Pieterse et al., 2022; Robertson & Carter, 2022). Particularly for black women, race-related discrimination, as well as other intersecting oppressions (e.g., gender, socioeconomic), increase their susceptibility to experiencing trauma-related symptoms and trauma disorders (Green, 2017; Hall, 2018). Black women disproportionately experience some of the highest rates of psychological and physical violence, childhood and sexual

✉ Tiffany R. Williams
twill278@tnstate.edu

Christy L. Erving
christy.erving@austin.utexas.edu

Fanchen Gao
fgao@tnstate.edu

Taeja Mitchell
tmitch57@tnstate.edu

Claire Muwele
cmuwele1@tnstate.edu

Reniece Martin
rmarti17@tnstate.edu

Miaya Blasingame
miaya.blasingame@vanderbilt.edu

Dana Jennings
djenni10@tnstate.edu

[1] Psychological Sciences & Counseling, Tennessee State University, 3500 John A. Merritt Blvd., Clay Hall 308CC, Nashville, TN 37209, USA

[2] Department of Sociology, The University of Texas at Austin, Austin, TX, USA

[3] Institute for Medicine and Public Health, Vanderbilt University Medical Center, Nashville, TN, USA

abuse, homicide, and maternal mortality (Lacey et al., 2021; Melillo, 2020; Violence Policy Center, 2020). Consider the following when evaluating the prevalence of high rates of posttraumatic stress disorder among black women: (a) about 94.2% living in the U.S. report experiencing at least one trauma in their lives and (b) about eight out of ten experienced a trauma in their lifetime (Burnett-Zeigler, 2021; Meshberg-Cohen et al., 2016). Black women are vulnerable to experiencing trauma symptoms and facing racial wounds deriving from race-related discrimination (Comas-Díaz, 2016).

Black women face some of the most intensive life stressors and must simultaneously navigate race-related stress in multiple contexts. Singular or cumulative race-related stressors can manifest into a more severe emotional injury, known as race-related trauma, and be quite damaging to the whole person (Carter, 2007; Pieterse et al., 2022; Robertson & Carter, 2022). As technology advances and the sociopolitical context shifts, both of which perpetuate race-related discrimination, race-related trauma is not an easy feat to overcome and healing can be particularly difficult (Comas-Díaz, 2016; Hall, 2018; Lewis, 2023). For example, Black women and girls are inundated with messaging, misrepresentations, and images in mainstream culture, news outlets, and social media that promote racialized stereotypes of black women, which, if internalized, can contribute to psychological distress (Cheers, 2020; Lewis, 2023; Spates et al., 2020; West, 2018).

There is a growing body of literature that examines the effects of race-related discrimination, race-related stress, and their contribution to trauma-related symptoms (Adames et al., 2022; Mekawi et al., 2022; Robertson & Carter, 2022). Fewer studies have examined the extent to which psychosocial resources or protective factors may mitigate the negative effects of race-related stress on Black women's reports of trauma symptoms. Protective factors known to facilitate coping and healing among black women experiencing distress are resilience and social support (Erving et al., 2021; Koch, 2022; Kte'pi, 2023; Jones et al., 2022). Hence, the current study ascertains the extent to which resilience and social support may reduce the influence of race-related stress on trauma symptomatology.

Racial Discrimination

Race-related discrimination is a systemic belief in racial superiority and inferiority enacted through an ideology of societal privilege, institutional, and systematic policies and practices, and the individual behaviors of a dominant group (Jones, 1997). Following the Civil Rights movement, race-related discrimination in America manifested primarily through overt acts of white supremacy, and racial hatred but has since transitioned into more subtle, implicit, and ambiguous expressions (Sue et al., 2007). Race-related discrimination is experienced overtly, covertly, or vicariously and is rooted in a historical perpetuation of injustices and disparities (Harrell, 2000). The complexity and insidiousness of race-related discrimination are captured via three primary types that can manifest in various contexts: *individual* (belief in the subordination of a racial/ethnic group), *institutional* (systemic oppression), and *cultural* (ethnocentrism) (Harrell, 2000; Jones, 1997). The totality of race-related discrimination against black people involves the concurrent exposure to racism in interpersonal, collective, cultural, and social contexts (Harrell, 2000). Perpetual and cumulative experiences of race-related discrimination contribute to feelings of marginalization, oppression, and invisibility and are detrimental to Black people's psychological and physical health (Sue et al., 2007). Black women's experience of race-related discrimination is far more complex, as it is not so easy to tease out the presence of other intersecting oppressions, such as gender discrimination (Lewis et al., 2017).

The Intersection of Gender Discrimination

Although not within the scope of this paper, we would be remiss to neglect briefly accounting for the intersectional experiences of gender-based discrimination. Black women experience unique systemic and contextual stressors associated with the intersectionality and dual stigmatization of their race and gender (Lewis et al., 2017). Essed (1991) described this unique experience as *gendered racism*. When asked to report their experiences with race-related discrimination, Black women often recount experiences that are also tied to their disadvantaged status as women (Essed, 1991; Lewis et al., 2017). Racialized stereotypes of black women perpetuate race- and gender-based discrimination. Jezebel, Mammy, Sapphire, Superwoman, and Welfare Queen are the most common stereotypes represented in mainstream culture (Cheers, 2020; Lewis et al., 2017; West, 2018). Stereotypical misrepresentations intended to characterize black womanhood range from the oversexualized and promiscuous Jezebel; overweight and non- feminine Mammy; angry, aggressive, and loud Sapphire; unshakable, confident, and selfless Superwoman; to the uneducated and manipulative Welfare Queen thriving on public assistance programs (Cheers, 2020; West, 2018; Woods-Giscombe et al., 2016). The internalization of stereotypes contributes to psychological distress for black women (Spates et al., 2020).

Race-Related Stress and its Mental Health Effects

Several components underlie race-related stress. Utsey's (2012) framework of prolonged race-related stress outlines four factors: preservative cognition (race-related rumination), secondary appraisal, and psychological and physiological anticipatory race-related stress (ARRS). Under investigation for the current study are perseverative cognition and ARRS. Perseverative cognition refers to the active and conscious cognitive process of holding (e.g., worry, rumination, obsessive thinking) a stressor at the forefront of one's mind, which prolongs the physiological and psychological responses to the said stressor. ARRS refers to stress induced responses to the anticipation of stress, related to race-related events, and is less a product of the stressor and more the product of the uncertainty and anticipation of the stressor (Utsey, 2012).

The impacts of perseverative cognition and ARRS and race-related discrimination are emerging in the literature. In a cross-lagged analysis, Watson-Singleton and colleagues (2021) examined the relationship between race-related discrimination and depression and any moderating effects of perseverative cognition and black lives matter (BLM) support or action over a span of six months. Findings revealed perseverative cognition and BLM support at high levels serve as protective in the relationship between race-related discrimination and depression. They concluded that coping with race-related discrimination requires targeting intrapersonal (e.g., preservative cognition) and interpersonal (e.g., BLM support) support to reduce the adverse effects. In the current study, we are investigating preservative cognition as a predictor of traumatic stress. We are testing the moderating effects of an intrapersonal factor, *resilience*, and an interpersonal factor, *social support*, on the relationship between preservative cognition and traumatic stress.

Mekawi and colleagues (2021) conducted a study investigating the relationship between race-related discrimination, ARRS, preservative cognition, attention threat bias, and low positive affect among college-aged Black women. Unlike the previous study, preservative cognition served as a mediator in this investigation. They found evidence suggesting race-related discrimination was indirectly linked to low positive affect through ARRS depending on the degree of low or average attention bias. In other words, black women's experience of race-related discrimination was associated with their anticipation of stress as well as linked with a race-related event to the degree that they were exhibiting at least average attention to bias toward threat. Similarly, they noted that race-related discrimination was indirectly linked with low positive affect (e.g., anhedonia) through preservative cognition, which was also dependent on a low or average threat to attention bias. In other words, unconsciously and automatically avoiding a threat contributes to low positive affect with increased preservative cognition. Thus, the deleterious effects of race-related stress are evidenced. We contribute to the literature by examining preservative cognition or ARRS as predictors of traumatic symptoms.

Anticipation of race-related discrimination—before it occurs—is rarely assessed in discrimination literature. Much of the research examines concrete race-related events or perceived experiences. Furthermore, the relationship between perseverative cognition and anticipatory race-related stress with trauma symptoms is virtually unknown. Perseverative cognition and anticipatory race-related stress are necessary nuances, as they are mechanisms through which race-related discrimination may activate trauma responses. Not only is it critical to understand the interpersonal experiences of race-related discrimination themselves as they occur within the moment, but it is also necessary that we acknowledge their after-effects "aftershocks" that can induce trauma responses.

Black Women's Experience of Trauma

A stress response can be elevated to a trauma response when available coping resources are insufficient to manage the oppressive stressor. Carter (2007) defined racial trauma as a prevailing (or threat of) emotional, psychological, cognitive, or physical wound that occurs due to experiencing race-related discrimination. Carlson (1997) proposed a race-based traumatic stress model can be used to understand the process by which racial trauma manifests. The model comprises three components: (1) an emphasis on the subjective appraisal or perception of the event; (2) an understanding of experiences of racism as sudden and unexpected, thus influencing the ability to adapt or experience posttraumatic growth; and (3) the subjective experience of the event as controllable influencing the degree to which an event is experienced as traumatic.

Whereas acute core responses of trauma that manifest include intrusion, arousal, and avoidance, long-term unmanaged manifestations may be depression, anxiety, self-worth or blame, guilt, shame, or challenges in romantic and interpersonal relationships (Carlson, 1997; Carter, 2007).

Little is known about the relationship between race-related stress and trauma-related conditions. What is known is that experiences of race- and gender-based discrimination contributes to race-related stress and trauma symptomatology. For example, recent studies provided evidence of the relationship between race- and gender-based discrimination and trauma cognitions and symptoms among black women (Dale & Safen, 2019; Mekawi et al., 2021; Moody & Lewis, 2019). We draw upon these studies to not only examine the connection between race-related stress and trauma symptoms but also determine if protective factors will reduce the effects of this connection.

Resilience and Social Support as Protective Factors

Helping Black women endure racial stress involves the identification and investigation of protective factors that will potentially reduce the effects of race-related discrimination and traumatic stress. As Carlson's (1997) race-based traumatic stress model is a non-pathologizing framework that focuses less on physical harm, it can be used to inform how to facilitate coping among black women. The model can empower black women to vocalize and ascribe meaning to the trauma experiences from their perspective. It can challenge them to capitalize on their internal strengths or cultural protective factors to process gender- and race-related experiences and any connections to traumatic stress (Carlson, 1997; Carter, 2007). Here, we focus on resilience and social support as potential protective factors that reduce traumatic stress deriving from race-related discrimination.

Resilience is a protective factor that generates as people experience stressors and challenges. Not only does it serve as a coping strategy, but it informs a person's capacity to "bounce back" or rapidly recover from experiences of adversities (Kte'pi, 2023). Although resilience is a construct that is not directly observable, it is inferred that a person is resilient by examining her adaptive capabilities in response to risk or hardship (Kte'pi, 2023; Meyer, 2010). As well, resilience means managing the stress that ensues from adversity while simultaneously coping with any negative emotional reactions and continuing to function and carry out daily tasks and responsibilities (Kte'pi, 2023). Kumpfer (1999) describes resilience as a multidimensional construct that produces positive emotional and physical outcomes including enhanced mental and physical health and societal rewards. Multiple intersecting factors contribute to or hinder the development of resilience including, but not limited to, the presence of social support and minority stress (Kumpfer, 1999).

Dating back to slavery, black Americans learned to face and cope with numerous interrelated systemic oppressions and adversities resulting in most managing to overcome these conditions and develop into well-functioning adults (Brown & Tylka, 2011). In addition, factors, such as racial socialization and culture-specific coping embedded in black/African American culture are linked to the presence of resilience making it a learned and socialized response (Brown & Tylka, 2011; Utsey et al., 2008). Factors identified as essential in black women's resilience development and sustainment include self-acceptance, disclosure, self-compassion, social support, will to live, and service (Dale & Safren, 2019; Koch, 2022). Resilience is a protective factor that black women have that may help them cope with race-related stress and trauma (Erving et al., 2021; Koch, 2022).

Social support is a social resource of support from people (e.g., family, friends) provided by individuals, groups, or communities (Zimet et al., 1988). Support ranges from emotional, physical, and economic that offers a source of relief to individuals managing stress or adversity. Though there are various dimensions of social support, the quality of relationships is the strongest predictor of well-being (Charney, 2004; Southwick et al., 2005). Neuropathways linked with social support help foster resilience, reduce stress, and improve mental health (Ozbay et al., 2007). Social support and resilience together are intersecting protective factors that serve as a buffer for black women in managing race-related and traumatic stress. Building resilience through enduring adversity facilitates the activation of active coping and establishes protective social ecosystems that reduce stress caused by oppression (Kumpfer, 1999).

Social support reduces psychological stress for black women (Erving et al., 2021; Jones et al., 2022). Types of social support that are instrumental in promoting black women's well-being include churches, friends, and immediate or extended family (Brown, 2008; Odafe et al., 2017). Social support has also been identified as a protective factor and has a partial buffering effect when managing race-related and gender discrimination (Jones et al., 2022; Utsey et al., 2008). In sum, we propose that social support and resilience will operate to protect black women from the psychological harm of race-related perseverative cognition and anticipatory stress.

The Current Study

Racial stress is systemic oppression that contributes to black women experiencing trauma symptoms. Few studies investigated the relationship between race-related stress and traumatic stress among Black women. To date, even fewer studies offer evidence about the role that perseverative cognition and ARRS have on traumatic stress or the moderating impacts of protective factors. Preservative cognition has been investigated as a moderator and mediator in previous studies. The present study contributes to the literature by examining the relationship between two relatively novel measures of race-related stress (i.e., perseverative cognition and ARRS) and traumatic symptoms, and evaluating whether protective factors, particularly resilience and social support, moderate the relationship between race-related stress and trauma symptoms. We hypothesize that:

1. Perseverative cognition will be positively associated with traumatic symptoms.

2. Anticipatory race-related stress will be positively associated with traumatic symptoms.
3. Social support (3a) and resilience (3b) will moderate the association between perseverative cognition and traumatic symptoms.
4. Social support (4a) and resilience (4b) will moderate the association between anticipatory race-related stress (ARRS) and traumatic symptoms.

Method

Participants and Procedure

Participants were part of a larger mixed-methods study, *the Gendered Racism and Well-being Questionnaire*. The sample comprised 234 black female-identified undergraduate and graduate students enrolled at a Historically Black College or University (HBCU) in the southeast U.S. The data were collected between 2020 and 2021. Participants were 18 to 65 years old and English-speaking. A diverse range of degree programs was represented (e.g., Public Health, Business, Aeronautic & Industrial Technology). Other demographic characteristics of the sample will be discussed in the results. About 32 respondents (13.7%) reported indirect or vicarious experiences of racism.

The study was approved by the Institutional Review Board. Qualtrics^{XM} was used to administer the survey online. The survey took 30–40 min to complete. Recruitment occurred in two phases. First, participants were recruited from the psychology department. With the use of Sona System, they were given extra credit for participation. Second, a recruitment flier embedded with a link to the survey invited students to participate. The recruitment flyer introduced the researchers and the study, invited participation in the study, and notified students of the chance to win one of six $25 Amazon Gift cards for participation. The flyer was emailed to all students via their university emails. Participants in the second phase of recruitment entered a raffle to win one of six $25 Amazon Gift Cards to compensate them for their participation. Before and after the survey, participants were provided contact information for the university counseling center and local mental health resources in the event they experience any distress.

Measures

Racial Stress

We assess two dimensions of race-related stress, both of which are subscales from the Prolonged Activation and Anticipatory Race-Related Stress Scale (PARS; Utsey et al., 2012). PARS is a 17-item self-report measure assessing perceived levels of race-related stress. PARS first provide a prompt requesting the participants to reflect on a race-related stressor that they (or someone close to them) encountered within the last year. Of the four dimensions of PARS, two were germane to the current study. First, *perseverative cognition* was a five-item scale that included the following: "On a scale from 1 to 7, I would describe my experience with racism as…" (1 = *not at all stressful*; 7 = *extremely stressful*), "In the days/weeks after my experience with racism, I thought about it…", "Whenever I thought about my experience with racism, I would think about it for …", "In the days/weeks after my experience with racism, I continued to think about it for…", and "I would think about my experience with racism when I did not mean to…". Response options for the last four items were measured on a Likert-type scale ranging from 1 (*not at all*) to 7 (*more than three times per day*). The items were averaged, and higher scores reflect higher levels of rumination. Second, the psychological Anticipatory Race-Related Stress Scale (ARRS) included four items that assessed respondents' level of agreement with the following statements: "When I am around White people, I expect them to say or do something racist", "I believe that most Black people will experience some form of racism in the future", "I know if I got where there are mostly White people, there is a good chance I will experience racism", and "I believe there is a good chance that I will experience racism in the future." Response options ranged from 1 (= *strongly disagree*) to 7 (= *strongly agree*). We averaged the items; higher scores reflected greater anticipation of race-related stress. Content validity was established by experts who reviewed items for appropriate assessment of the constructs and ranked them for clarity (Utsey et al., 2012). Evidence of convergent validity was also demonstrated with correlations in expected directions between Preservative Cognition and ARRS-Psychological with subscales of the Experiences of Discrimination Scale and the Multidimensional Ethnic Identity Measure Revised, respectively (Utsey et al., 2012). Previous research indicates moderate internal consistency for Perseverative Cognition ($\alpha = 0.77$) and ARRS-Psychological ($\alpha = 0.70$) (Utsey et al., 2012). Internal reliability for the current study was $\alpha = 0.83$ for perseverative cognition and $\alpha = 0.81$ for ARRS.

Traumatic Stress

The Posttraumatic Stress Disorder (PTSD) Checklist for DSM-5 (PCL-5; Weathers et al., 2013) is a 20-item self-report measure used to assess symptoms based on the Diagnostical and Statistical Manual of Mental Disorders (DSM-5; APA, 2013) symptom criteria for PTSD. Participants are asked to answer items about problems that "people

sometimes have in response to a very stressful experience." Items precede the following prompt, "In the past, how much were you bothered by …" Example items include "… repeated, disturbing, and unwanted memories of the stressful experience?" "feeling distant or cut off from other people?" or "feeling jumpy or easily startled?" Participants responded on a Likert-type scale ranging from 0 (=*not at all*) to 4 (=*extremely*). Items are summed to produce a total score (0–80) with higher scores indicative of the presence of PTSD symptoms. Divergent and convergent validity has been demonstrated with significant correlations in expected directions with the Patient Health Questionnaire and the PTSD Checklist Civilian Version, respectively (Bovin et al., 2015). Moderate internal consistency ($\alpha = 0.56$ to 0.95) and high test–retest reliability ($\alpha = 0.84$) was demonstrated for the PCL-5 (Bovin et al., 2015; Moody & Lewis, 2019; Sveen et al., 2016). High internal reliability ($\alpha = 0.94$) was demonstrated for the current study.

Resilience

The Connor-Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003) is a 25-item scale that evaluates a person's capacity for psychological resilience. Sample items include "Having to cope with stress can me stronger," and "I believe I can achieve my goals, even if there are obstacles." Response options include a Likert-type scale ranging from 0 (=*not true at all*) to 4 (=*true nearly all the time*). Items are scored to generate a total score with higher scores reflecting higher levels of resilience. Evidence of convergent and divergent validity with correlations in expected ways with hardiness, perceived stress, and social support (Connor & Davidson, 2003). CD-RISC is most often used as a unidimensional measure with internal reliability ranging from $\alpha = 0.91$ to $\alpha = 0.93$ (Brown & Tylka, 2011; Castelin & White, 2022). Good internal consistency ($\alpha = 0.92$) was demonstrated in the current study.

Social Support

The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988) is a 12-item self-report measure that assesses perceptions of social support. Support from friends (e.g., "I can count on my friends when things go wrong"), family (e.g., "I can talk about my problems with my family"), and a significant other (e.g., "I have a special person who is a real source of comfort to me") are evaluated. Responses were rated on a Likert-type scale ranging from 1 (=*very strongly disagree*) to 7 (=*very strongly agree*). Scores are averaged, and high scores are indicative of high social support. Convergent validity was demonstrated with correlations in expected directions with the Network Orientation Scale (Cecile et al., 1995). Previous research suggests high internal consistency with coefficients ranging from $\alpha = 0.91$ to 0.93 (Brown, 2008; Canty-Mitchell & Zimet, 2000). Good internal reliability ($\alpha = 0.93$) was indicated for the current study.

Controls

All regression models controlled for several factors associated with mental health. *Age* was measured in years and included four categories: 18–22 (reference), 23–30, 31–40, and 41 and older. *Employment status* included full-time (reference), part-time, and not working/other. *First-generation college student* status distinguished between those who were the first in their family to attend college (=1) and those who were not (=0). *Sexual orientation* distinguished between sexual minority identification (i.e., lesbian, gay, bisexual, other) (=1) compared to those who identified as heterosexual or straight (=0). *Marital status* included three categories: single (reference), married, and divorced/separated/widowed/other.

Data Analysis

Data were inspected for accuracy, missing data, and normality of distribution using STATA 14.2. Because 19 respondents were missing on age, age was imputed using the mean age of those with the same college standing (e.g., senior). The PTSD symptom checklist had 4.7% missing ($N = 11$), perseverative cognition was missing one respondent, and ARRS was missing one respondent. Social support ($N = 7$) and resilience ($N = 4$) had 3% and 1.7% missing, respectively. We did not impute the key study measures. Complete data were available for 216 respondents. For the PTSD symptom checklist, we assessed whether the measure was normally distributed by examining skewness (0.32) and kurtosis (2.19); the distribution of this measure met assumptions for univariate normality because the absolute value for skewness was less than 3 and the absolute value for kurtosis was less than 10 (Chou & Bentler, 1995; Kline, 2015). Linear regression is appropriate for the analysis of the PTSD symptom checklist. The analysis proceeds as follows. First, we provide descriptive statistics for study measures. Then, we use hierarchical multiple regression to test our first and second hypotheses. Last, to test our third and fourth hypotheses, we use hierarchical multiple regression and include statistical interactions for the study measures theorized as moderators (i.e., social support, resilience) of the association between race-related stress (i.e., perseverative cognition, ARRS) and traumatic symptoms. In all regression analyses, standardized coefficients are reported.

Table 1 Descriptive Statistics ($N = 216$)

	Mean or proportion	SD	Skewness	Kurtosis
PTSD symptom checklist (PCL5-20), 0–75	28.88	18.20	.32	2.19
Perseverative cognition, 1–6.80	3.81	1.46	.02	2.15
Anticipatory race-related stress, 1.25–7.00	5.47	1.16	− 1.17	4.56
MSP social support, 1–7	5.34	1.24	− .68	3.16
Connor-Davidson resilience scale, 1.79–5.00	3.95	.58	− .48	3.32
Age				
18–22 years (reference)	.60			
23–30 years	.18			
31–40 years	.09			
41 years and older	.13			
Employment status				
Full-time (reference)	.33			
Part-time	.37			
Not working/other	.30			
First-generation college student	.42			
Lesbian, gay, bisexual, other	.15			
Marital status				
Single	.74			
Married	.15			
Divorced/separated/widowed/other	.11			

Source: gendered racism and well-being questionnaire, 2020–2021

PTSD post-traumatic stress disorder, *MSP* multidimensional scale of perceived

Results

Means, standard deviations, and the range of all study measures are included in Table 1. PTSD symptoms had a mean score of 28.88 (SD = 18.20). Perseverative cognition had a mean of 3.81 (SD = 1.46), falling between the categories of "2–3 times per week" and "3 or more times per week", indicating high levels of race-related rumination. ARRS mean score was 5.47 (SD = 1.16), an indication of average agreement that respondents anticipated race-related stress to occur. The mean for perceived social support was 5.34 (SD = 5.34) and the mean resilience score was 3.95 (SD = 0.58). With regards to the study controls, 60% were between the ages of 18 to 22 years, 18% were 23–30 years of age, 9% were between 31 and 40 years old, and 13% of the sample was 41 years or older. Regarding employment, 33% worked full-time, 37% worked part-time, and 30% were not working or reported "other." Forty-two percent of respondents were first-generation college students, and fifteen percent identified as a sexual minority (i.e., lesbian, gay, bisexual, or other). Nearly, three-quarters of respondents were single, 15% were married, and 11% were divorced/separated/widowed or reported "other".

Pearson correlation coefficients between the key study measures are reported in Table 2. PTSD symptoms are significantly correlated with each key independent measure. Specifically, PTSD symptoms are positively correlated with perseverative cognition ($r = 0.36$, $p < 0.05$) and ARRS ($r = 0.31$, $p < 0.05$). PTSD symptoms are negatively correlated with perceived social support ($r = -0.35$, $p < 0.05$) and resilience ($r = -0.36$, $p < 0.05$). Perseverative cognition and ARRS are positively correlated ($r = 0.45$, $p < 0.05$). Perseverative cognition is negatively correlated with perceived social support ($r = -0.15$, $p < 0.05$). Social support and resilience are positively correlated ($r = 0.54$, $p < 0.05$).

Table 2 Pearson correlation coefficients among key study variables ($N = 216$)

	1	2	3	4	5
1. PTSD Symptom Checklist	1.00				
2. Perseverative Cognition	.36*	1.00			
3. Anticipatory Race-Related Stress	.31*	.45*	1.00		
4. MSP Social Support	− .35*	− .15*	− .002	1.00	
5. CD Resilience Scale	− .36*	− .12	.08	.54*	1.00

Source: gendered racism and well-being questionnaire, 2020–2021

MSP multidimensional scale of perceived, *CD* Connor-Davidson

To test the first and second hypotheses, Table 3 includes hierarchical multiple regression models investigating the

Table 3 Hierarchical multiple regression analysis of perseverative cognition, anticipatory race-related stress, and traumatic symptoms ($N=216$)

	Model 1	Model 2	Model 3	Model 4
Perseverative cognition		.42***		.36***
		(.77)		(.85)
Anticipatory race-related stress			.29***	.13
			(1.01)	(1.06)
Controls				
Age (18–22 years—reference)				
23–30 years	− .09	− .09	− .07	− .08
	(3.50)	(3.17)	(3.36)	(3.16)
31–40 years	− .16*	− .17*	− .13	− .16*
	(4.89)	(4.43)	(4.70)	(4.43)
41 years and older	− .28**	− .35***	− .27**	− .33***
	(4.83)	(4.41)	(4.62)	(4.39)
Employment status (full-time—ref.)				
Working part-time	.09	.05	.09	.058
	(3.38)	(3.07)	(3.23)	(3.05)
Not working/other	.06	.07	.07	.07
	(3.01)	(2.73)	(2.88)	(2.71)
First-generation college student	− .04	− .02	− .002	− .01
	(2.43)	(2.20)	(2.34)	(2.21)
Lesbian, gay, bisexual, other	.19**	.13*	.17*	.13*
	(3.42)	(3.13)	(3.28)	(3.11)
Marital status (single—reference)				
Married	.04	− .004	− .01	− .02
	(4.17)	(3.80)	(4.03)	(3.80)
Divorced/sep/widowed/other	− .04	− .003	− .02	.001
	(4.07)	(3.71)	(3.91)	(3.69)
R^2	.13	.29	.21	.30

Source: gendered racism and well-being questionnaire, 2020–2021

standardized beta coefficients; standard errors in parentheses

*$p<0.05$, **$p<0.01$, ***$p<0.001$

association between perseverative cognition, ARRS, and traumatic symptoms before and after adjusting for study control measures. Model 1 adjusted for study controls; 13% of the variation in traumatic symptoms are explained by age, employment status, first-generation college student status, sexual orientation, and marital status. In Model 2, perseverative cognition was associated with higher traumatic symptoms (standardized $\beta=0.42$; $p<0.001$), and the R-squared elevates to 0.29. The third model shows a positive association between ARSS and traumatic symptoms (standardized $\beta=0.29$; $p<0.001$) and an R-squared of 0.21. The positive association for perseverative cognition (standardized $\beta=0.36$; $p<0.001$) remains in Model 4 when perseverative cognition and ARRS are simultaneously entered into the model. Approximately 17% of the variation in traumatic symptoms was explained by preservative cognition and ARRS (comparing the difference between the R-squared for Models 1 and 4).

Though not the primary focus of the study, it is important to note that age and sexual orientation were significant predictors of traumatic symptoms. Specifically, older respondents (i.e., 30 years of age and older) reported significantly fewer traumatic symptoms relative to the youngest respondents (i.e., between 18 and 22 years of age). In addition, sexual minority respondents had higher traumatic symptoms relative to their heterosexual counterparts. These results suggest that age and sexual orientation should be considered as important risk factors associated with traumatic symptoms among Black college-attending women.

Table 4 includes hierarchical multiple regression models in which we establish that social support (Model 1) and resilience (Model 2) are associated with fewer traumatic symptoms, adjusting for perseverative cognition, ARRS, and the study controls. When entered into a model simultaneously, social support and resilience remain significant in Model 3. Next, we tested the third and fourth hypotheses. Statistical interactions were performed between race-related

Table 4 Hierarchical multiple regression analysis of perseverative cognition, anticipatory race-related stress (ARSS), social support, resilience, and traumatic symptoms ($N=216$)

	Model 1	Model 2	Model 3	Model 4	Model 5
Perseverative cognition	.29***	.29***	.27***	.29***	.28***
	(.83)	(.84)	(.83)	(.81)	(.82)
Anticipatory race-related stress	.15*	.19**	.18**	.86***	.85**
	(1.01)	(1.03)	(1.02)	(3.29)	(4.47)
MSP social support	− .28***		− .19**	.59*	− .20**
	(.87)		(1.00)	(3.54)	(.99)
Connor-Davidson resilience scale		− .28***	− .18*	− .22**	.28
		(1.94)	(2.22)	(2.20)	(6.45)
Significant statistical interactions					
ARRS x social support				− 1.03**	
				(.61)	
ARRS x Connor-Davidson resilience scale					− .85*
					(1.17)
R^2	.37	.36	.39	.42	.40

Source: gendered racism and well-being questionnaire, 2020–2021

Standardized beta coefficients; Standard errors in parentheses

All models adjust for age, employment status, first-generation college student status, sexual orientation, and marital status

MSP multidimensional scale of perceived, *ARRS* anticipatory race-related stress

*$p<0.05$, **$p<0.01$, ***$p<0.001$

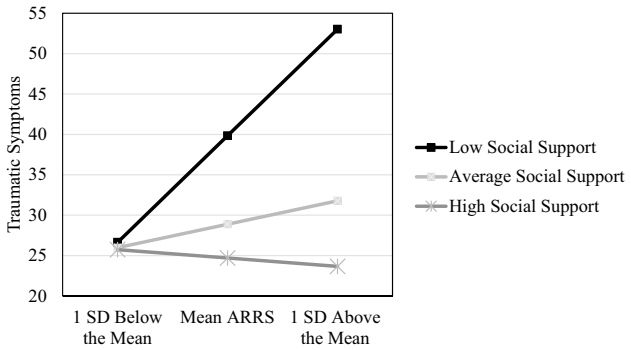

Fig. 1 Predicted values of traumatic symptoms by anticipatory race-related stress (ARRS) and social support. Source: Gendered Racism and Well-Being Questionnaire, 2020–2021. Predicted values are based on Table 4, Model 4

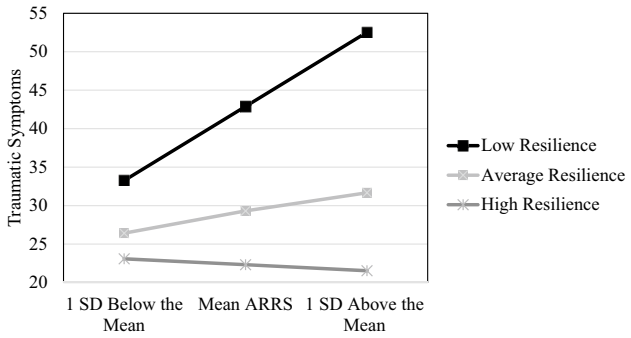

Fig. 2 Predicted Values of Traumatic Symptoms by Anticipatory Race-Related Stress (ARRS) and Resilience. Source: Gendered Racism and Well-Being Questionnaire, 2020–2021. Predicted values are based on Table 4, Model 5

stress (i.e., perseverative cognition and ARRS) and the moderators (i.e., social support, resilience). The interactions with perseverative cognition were not statistically significant (not shown); therefore, hypotheses 3a and 3b were not supported. However, statistical interactions with social support and resilience were identified for ARRS. Model 4 reports a significant interaction between ARRS and perceived social support ($\beta=-2.04$; $p<0.001$), and Model 5 reports a significant interaction between ARRS and resilience ($\beta=-2.80$; $p<0.05$). In sum, we find empirical support for hypotheses 4a and 4b.

For ease of interpretation, significant statistical interactions were modeled in Figs. 1 and 2. Predicted values of trauma symptoms were calculated using the mean and as well as one standard deviation above and below the mean for ARRS, social support, and resilience. Figure 1 models the interaction between ARRS and social support. At average and high social support levels, the association between ARRS and traumatic symptoms is relatively weak. Among those with low levels of social support, ARRS increases traumatic symptoms substantially. Under the condition of high ARRS and low social support, traumatic symptoms have a predicted value of 53.02. When

Black women experience high anticipatory race-related stress and low social support, they experience an average trauma symptom score of 53.02, which is quite high given that the range of the entire PCL-5 scale is 0 to 75.

In Fig. 2, the significant interaction between ARRS and resilience is shown. Similar to the findings for social support, when resilience is low, the association between ARRS and traumatic symptoms is strong and positive. However, there is a weak to non-existent association between ARRS and traumatic symptoms for individuals with average and high-resilience levels.

Discussion

The purpose of the current study was to examine the association between two recently validated subscales of the prolonged activation and anticipatory race-related stress scale (Utsey et al, 2012)—perseverative cognition and ARRS—and trauma symptoms. The second goal was to assess whether social support and resilience moderated the association between perseverative cognition or ARRS and trauma symptoms. This research contributes to a growing literature examining how race-related stress influences the experience of trauma among Black women.

The results of the current study support Hypotheses 1 and 2 in that perseverative cognition among black women were positively related to trauma symptoms. Frequent experiences of race-related stress for black women contribute to greater endorsement of trauma responses. These findings are consistent with previous research on black women's experiences of race-related stress and the association with trauma-related symptoms (Dale & Safren, 2019; Mekawi et al., 2021; Moody & Lewis, 2019). The findings substantiate the growing body of evidence that demonstrates the deleterious effects that race-related experiences have on black women's mental health (Castelin & White, 2022; Spates et al., 2020).

The results also suggest that older women experience fewer trauma symptoms deriving from the anticipation of race-related stress. Perhaps, older black women experience physiological or health conditions (e.g., hypertension) as a by-product of prolonged exposure to race-related stress (Geronimus et al., 2006). A possible explanation for age differences between black women could be explained by the weathering hypothesis in which older black women have spent a lifetime engaged in high-effort coping that leads to deterioration of health (Geronimus et al., 2006). More research is needed to understand the age differences in black women's physiological responses and physical health effects that derive from race-related and gendered discrimination (Lewis, 2023).

The findings did not support hypothesis 3 in that resilience and social support failed to moderate the relationship between perseverative cognition on trauma stress symptoms. Counter to our hypothesis, social support and resilience do not reduce the psychological consequences of rumination, as some researchers suggest (Ozbay et al., 2007). However, there is recent evidence suggesting that perseverative cognition might a maladaptive coping strategy that exacerbates stress and perhaps there are other intrapersonal factors that can be targeted to neutralize the effects of rumination (Mekawi et al., 2021; Washington-Singleton et al., 2021). More research investigating other intrapersonal factors is needed to determine the best strategy for reducing the effects of perseverative cognition.

Last, we found support for our fourth hypothesis in that high levels of social support and resilience not only served as protective in general but also reduced the influence of ARRS on trauma symptoms. Remarkably, for women with high levels of social support and resilience, the association between ARRS and trauma symptoms was relatively weak to non-existent. However, with low levels of social support and resilience, ARRS appears to have traumatizing effects. Consistent with existing research, the findings highlight how the presence of resilience and social support serve as protective factors and diminish the effects of race-related stress and trauma responses (Erving et al., 2021; Jones et al., 2022; Watson-Singleton et al., 2021). Thus, enhancing resilience and utilizing one's support system can have dramatic effects on reducing race-related stress and trauma for black women.

Clinical assessment of black women experiencing anticipatory race-related stress and traumatic stress needs to comprise a multilevel approach. First, a thorough general mental health assessment including "general family history, psychiatric history, and physical health concerns" is necessary to obtain an accurate picture of the client's presenting concerns (Comas-Díaz, et al., 2016). Second, black women have unique experiences that often comprise a range of factors that contribute to trauma symptomatology, and thus, an evaluation of a complete trauma history (e.g., sexual, emotional, and physical abuse; sexual assault; intimate partner violence; physical assault and violence; refugee or political violence) (Comas-Díaz, 2016; Dale & Safren, 2019; Moody & Lewis, 2019). As racial—and gender—discrimination contributes to Black women's experience of trauma and may intersect with other traumas experienced, an assessment of oppressions that may interact with racial discrimination is necessary (Adames et al., 2022; Comas-Díaz, 2016; Spates et al., 2020). For example, helping Black women to identify racialized stereotypes, understand the myths that inform these misrepresentations of Black women, and discern the effects that it has on their mental health can cultivate critical consciousness, cultural authenticity, and resistance to racial or gender oppression and facilitate radical healing (Anderson et al., 2018; Lewis et al., 2016; West, 2018; Woods-Giscombe et al., 2016).

Treatment approaches to facilitate coping and healing from race-related and traumatic stress must be comprehensive (Adames et al., 2022; Sabri & Gielen, 2019). Exercising intentionality in the selection of interventions is vital when working with black women. The treatment process must include (a) acknowledgment that our understanding of the constructs, wellness, healing, and trauma, are informed through white, Eurocentric ideologies and beliefs, (b) recognition of the pitfalls of solely using evidence-based treatments (e.g., the efficacy of interventions with black clients), and (c) utilize culturally -appropriate and -relevant treatments to foster coping and healing (Lipscomb & Ashley, 2021; Quiñones-Rosado, 2020). Specifically, for black women, treatment must comprise a multi-component treatment plan with specific attention to the multiple layers impacting their experiences and mental health concerns (e.g., racial and gender discrimination, trauma, violence the intersection of stigmatized identities) and the inclusion of clinical interventions that target the propensity for perseverative cognition (Sabri & Gielen, 2019). More research is needed to identify clinical interventions (e.g., mindfulness, meditation, etc.) that are culturally relevant to interfere with perseverative cognition. Lastly, identifying clients' cultural strengths (e.g., resilience, social support) is essential in their healing, as it can facilitate taking ownership of their healing and retain and sustain balance in mending their soul wounds (Adames et al., 2022; Comas-Díaz et al., 2019; Mekawi et al., 2021; Quiñones-Rosado, 2020).

Limitations

Despite the study's strengths, there are some limitations. First, due to the cross-sectional design of the study, we are not able to establish the causal direction of the effects noted here. Nevertheless, supplemental analysis revealed that the linkage between preservative cognition and traumatic symptoms is likely bidirectional; the evidence of anticipatory race-related stress and traumatic symptoms being bidirectional was less conclusive. Future studies should examine how the association between race-related stress and trauma symptoms unfolds over time, enhancing the ability to make causal claims. Second, it is also important to assess how experiences with sexism may influence black women's experience of trauma. Due to marginalized intersecting identities, black women experience unique stressors pertaining to race- and gender- discrimination. More nuanced measures should capture the complexities of their social identities as both black and woman. Third, the focus of the current study was evaluating the race-related experiences of Black women and how these experiences generate traumatic stress. Since black women have the highest reported experiences of trauma (Burnett-Zeigler, 2021; Meshberg-Cohen et al., 2016), the intention of this study was to reveal the association between race-related stress and traumatic stress for this group of women. While men were excluded from the current study, future research should also investigate the nuances that Black males experience and how these experiences contribute to their mental health, as they are likely to be different from women. Fourth, social support is a multidimensional concept and the measure used in this study was unable to assess church-based or spiritual social support; social support from religious sources is important among black women. Assessing other sources and dimensions of social support may be effective in reducing the influence of race-related preservative cognition on traumatic stress. Nevertheless, our study findings provide fruitful directions for future investigations of how protective factors may be mobilized to protect black women from the harmful effects of race-related stress. Fifth, the PARS do not assess the amount of race-related discrimination experienced, and thus, it is a potential variable that could account for some of the variance in relation to traumatic stress or social support and resilience. Lastly, the data was collected with the use of self-report measures, which are vulnerable to participant bias, social desirability, and other distortion issues.

Funding This manuscript and the work completed in preparation for this manuscript were supported by funding awarded to Tiffany R. Williams from the American Association of University Women for Postdoctoral Research Leave. This work was also supported, in part, by grant P2CHD042849 awarded to the Population Research Center at The University of Texas at Austin by the Eunice Kennedy Shriver National Institute of Child Health and Human Development (Erving). No other funding sources, grants, or financial agreements were used.

Data Availability Data is available upon request from the corresponding author and principal investigator Tiffany R. Williams.

Declarations

Conflict of interest There are no conflicts of interest pertaining to the authors to report or special circumstances for this work.

Ethical Approval The project was approved by the Institutional Review Board before data collection. The authors followed the American Psychological Association's ethical guidelines through the research and reporting process.

References

Adames, H. Y., Chavez-Dueñas, N. Y., Lewis, J. A., Neville, H. A., French, B. H., Chen, G. A., & Mosley, D. V. (2022). Radical healing in psychotherapy: Addressing the wounds of racism-related stress and trauma. *Psychotherapy*. https://doi.org/10.1037/pst0000435

Bovin, M. J., Marx, B. P., Weathers, F. W., Gallagher, M. W., Rodriguez, P., Schnurr, P. P., & Keane, T. M. (2015). Psychometric properties of the PTSD checklist for diagnostical and statistical

manual of mental disorders-fight edition (PCL-5) in veterans. *Psychological Assessment, 28*(11), 1379–1391. https://doi.org/10.1037/pas0000254

Brown, D. (2008). African American resiliency: Examining racial socialization and social support as protective factors. *Journal of Black Psychology, 34*(1), 32–48. https://doi.org/10.1177/0095798407310538

Brown, D. L., & Tylka, T. L. (2011). Racial discrimination and resilience in African American young adults: Examining racial socialization as a moderator. *Journal of Black Psychology, 37*(3), 259–285. https://doi.org/10.1177/0095798410390689

Burnett-Zeigler, I. (2021). *Nobody knows the trouble I've seen: The emotional lives of Black women*. HarperCollins Publishers.

Canty-Mitchell, J., & Zimet, G. D. (2000). Psychometric properties of the multidimensional scale of perceived social support in urban adolescents. *American Journal of Community Psychology, 28*, 391–400.

Carlson, E. B. (1997). *Trauma assessments: Clinician's guide*. Guilford.

Carter, R. T. (2007). Racism and psychological and emotional injury: Recognizing and assessing race-based traumatic stress. *The Counseling Psychologist, 35*(1), 13–105. https://doi.org/10.1177/0011000006292033

Castelin, S., & White, G. (2022). "I'm a strong independent Black woman": The strong Black woman schema and mental health in college-aged Black women. *Psychology of Women Quarterly, 46*(2), 196–208. https://doi.org/10.1177/03616843211067501

Cecile, H., Stanley, M. A., Carrion, P. G., & Swann, A. (1995). Psychometric properties of the MSPSS and NOS in psychiatric outpatients. *Journal of Clinical Psychology, 51*(5), 593–602.

Charney, D. S. (2004). Psychobiological mechanisms of resilience and vulnerability: Implications for successful adaptation to extreme stress. *The American Journal of Psychiatry, 161*(2), 195–216. https://doi.org/10.1176/appi.ajp.161.2.195

Cheers, I. M. (2020). Black women in television: A short history. In K. Ross, I. Bachmann, V. Cardo, S. Moorti, & M. Scarcelli (Eds.), *The international encyclopedia of gender, media, and communication.* Wiley. https://doi.org/10.1002/9781119429128.iegmc136

Chou, C.-P., & Bentler, P. M. (1995). Estimates and tests in structural equation modeling. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 37–55). Sage Publications Inc.

Comas-Díaz, L. (2016). Racial trauma recovery: A race-informed therapeutic approach to racial wounds. In A. N. Alvarez, C. T. H. Liang, & H. A. Neville (Eds.), *The cost of racism for people of color: Contextualizing experiences of discrimination.* American Psychological Association. https://doi.org/10.1037/14852-012

Dale, S. K., & Safren, S. A. (2019). Gendered racial microaggressions to predict posttraumatic stress disorder symptoms and cognitions among Black women living with HIV. *Psychological Trauma, 11*(7), 685–694. https://doi.org/10.1037/tra0000467

Erving, C. L., Satcher, L. A., & Chen, Y. (2021). Psychologically resilient, but physically vulnerable? Exploring the psychosocial determinants of African American women's mental and physical health. *Sociology of Race & Ethnicity, 7*(1), 116–133. https://doi.org/10.1177/2332649219900284

Essed, P. (1991). *Understanding everyday racism: An interdisciplinary theory*. Publications Inc.

Geronimus, A. T., Hicken, M., Keene, D., & Bound, J. (2006). "Weathering" and age patterns of allostatic load scores among blacks and whites in the United States. *American Journal of Public Health, 96*(5), 826–833. https://doi.org/10.2105/AJPH.2004.060749

Green, S. (2017, July 13). Violence against Black women, many types, far reaching effects. Retrieved July 13, 2017, from https://iwpr.org/iwpr-issues/race-ethnicity-gender-and-economy/violence-against-black-women-many-types-far-reaching-effects/

Hall, J. C. (2018). It is tough being a Black woman: Intergenerational stress and coping. *Journal of Black Studies, 49*(5), 481–501. https://doi.org/10.1177/0021934718766817

Jones, M. K., Leath, S., Settles, I. H., Doty, D., & Conner, K. (2022). Gendered racism and depression among Black women: Examining the roles of social support and identity. *Cultural Diversity & Ethnic Minority Psychology, 28*(1), 39–48. https://doi.org/10.1037/cdp0000486

Kline, R. B. (2015). *Principles and practice of structural equation modeling*. Guilford publications.

Koch, A. (2022). Exploring resilience among Black women living with HIV in the southern United States: Findings from a qualitative study. *The Journal of the Association of Nursesin AIDS Care: JANAC, 33*(2), 224–234. https://doi.org/10.1097/JNC.0000000000000311

Kte'pi, B. M. (2023). *Resilience (psychology)*. Salem Press Encyclopedia.

Kumpfer, K. L. (1999). Factors and processes contributing to resilience: The resilience framework. In M. D. Glantz & J. L. Johnson (Eds.), *Resilience and development: Positive life adaptations* (pp. 179–224). Kluwer Academic Publishers.

Lacey, K. K., Mouzon, D. M., Parnell, R. N., & Lawson, T. (2021). Severe intimate partner violence, sources of stress and the mental health of U.S. Black women. *Journal of Women's Health, 30*(1), 17–28. https://doi.org/10.1089/jwh.2019.8215

Lewis, J. A. (2023). Contributions of Black psychology scholars to models of racism and health: Applying intersectionality to center Black women. *American Psychologist, 78*(4), 576–588. https://doi.org/10.1037/amp0001141

Lewis, J. A., Williams, M. G., Peppers, E. J., & Gadson, C. A. (2017). Applying intersectionality to explore the relations between gendered racism and health among Black women. *Journal of Counseling Psychology, 64*(5), 475–486. https://doi.org/10.1037/cou0000231

Lipscomb, A., & Ashley, W. (2021). A critical analysis of the utilization of eye movement desensitization and reprocessing (EMDR) psychotherapy with African American clients. *Journal of Human Services, 7*(1), 1–16.

Mekawi, Y., Carter, S., Packard, G., Wallace, S., Michopoulos, V., & Powers, A. (2022). When (passive) acceptance hurts: Race-based coping moderates the association between racial discrimination and mental health outcomes among Black Americans. *Psychological Trauma: Theory, Research, Practice, & Policy, 14*(1), 38–46. https://doi.org/10.1037/tra0001077

Mekawi, Y., Heller, W., & Hunter, C. D. (2021). The costs of anticipating and perseverating about racism: Mechanisms of the associations between racial discrimination, anxious arousal, and low positive affect. *Cultural Diversity & Ethnic Minority Psychology*. https://doi.org/10.1037/cdp0000495.supp

Melillo, G. (2020). Racial disparities persist in maternal morbidity, mortality and infant health. *American Journal of Managed Care*. Retrieved 2020, from https://www.ajmc.com/view/racial-disparities-persist-in-maternal-morbidity-mortality-and-infant-health

Meshberg-Cohen, S., Presseau, C., Thacker, L. R., Hefner, K., & Svikis, D. (2016). Posttraumatic stress disorder, health problems, and depression among African American women in residential substance use treatment. *Journal of Women's Health, 25*(7), 729–737. https://doi.org/10.1089/jwh.2015.5328

Meyer, I. H. (2010). Identity, stress, and resilience in lesbian, gay men, and bisexuals of color. *The Counseling Psychologist, 38*(3), 442–454. https://doi.org/10.1177/0011000009351601

Moody, A. T., & Lewis, J. A. (2019). Gendered racial microaggressions and traumatic stress symptoms among Black women. *Psychology of Women Quarterly, 43*(2), 201–214. https://doi.org/10.1177/0361684319828288

Odafe, M. O., Salami, T. K., & Walker, R. L. (2017). Race-related stress and hopelessness in community-based African American adults: Moderating role of social support. *Cultural Diversity & Ethnic Minority Psychology, 23*(4), 561–569. https://doi.org/10.1037/cdp0000167

Ozbay, F., Johnson, D. C., Dimoulas, E., Morgan, C. A., Charney, D., & Southwick, S. (2007). Social support and resilience to stress: From neurobiology to clinical practice. *Psychiatry (Edgmont (Pa: Township)), 4*(5), 35–40.

Pieterse, A. L., Roberson, K. L., Garcia, R., & Carter, R. T. (2022). Racial discrimination and trauma symptoms: Further support for the race-based traumatic stress symptom scale. *Cultural Diversity & Ethnic Minority Psychology*. https://doi.org/10.1037/cdp0000544

Quiñones-Rosado, R. (2020). Liberation psychology and racism. In L. Comas-Díaz & E. Torres-Rivera (Eds.), *Liberation psychology: Theory, method, practice, and social justice* (pp. 53–68). American Psychological Association.

Roberson, K., & Carter, R. T. (2022). The relationship between race-based traumatic stress and the trauma symptom checklist: Does racial trauma differ in symptom presentation? *Traumatology, 28*(1), 120–128. https://doi.org/10.1037/trm0000306

Sabri, B., & Gielen, A. (2019). Integrated multicomponent interventions for safety and health risks among Black female survivors of violence: A systemic review. *Trauma, Violence, & Abuse, 20*(5), 720–731. https://doi.org/10.1177/1524838017730647

Spates, K., Evans, N., James, T. A., & Martinez, K. (2020). Gendered racism in the lives of Black women: A qualitative exploration. *Journal of Black Psychology, 46*(8), 583–606. https://doi.org/10.1177/0095798420962257

Sue, D. W., Capodilupo, C. M., Torino, G. C., Bucceri, J. M., Holder, A. M. B., Nadal, K. L., & Esquilin, M. (2007). Racial microaggressions in everyday life: Implications for clinical practice. *American Psychologist, 62*, 271–286.

Sveen, J., Bondjers, K., & Willebrand, M. (2016). Psychometric properties of the PTSD Checklist for DSM-5: A pilot study. *European Journal of Psychotraumatology, 7*, 30165. https://doi.org/10.3402/ejpt.v7.30165

Utsey, S. O., Belvet, B., Hubbard, R. R., Fischer, N. L., Opare-Henaku, A., & Gladney, L. L. (2012). Development and validation of the Prolonged Activation and Anticipatory Race-Related Stress Scale. *Journal of Black Psychology, 39*(6), 532–559. https://doi.org/10.1177/0095798412461808

Utsey, S. O., Giesbrecht, N., Hook, J. N., & Stanard, P. (2008). Cultural, sociofamilial, and psychological resources that inhibit psychological distress in African Americans exposed to stressful life events and race-related stress. *Journal of Counseling Psychology, 55*(1), 49–62. https://doi.org/10.1037/0022-0167.55.1.49

Violence Policy Center. (2020). When men murder women: An analysis of 2018 homicide data. Retrieved 2020, from, https://vpc.org

Watson-Singleton, N. N., Mekawi, Y., Wilkins, K. V., & Jatta, I. F. (2021). Racism's effect on depressive symptoms: Examining perseverative cognition and Black lives matter activism as moderators. *Journal of Counseling Psychology, 68*(1), 27–37. https://doi.org/10.1037/cou0000436

West, C. M. (2018). Mammy, Sapphire, Jezebel, and the bad girls of reality television: Media representations of Black women. In J. Chrisler & C. Golden (Eds.), *Lectures on the psychology of women* (5th ed., pp. 139–158). Waveland Press.

Woods-Giscombé, C., Robinson, M. N., Carthon, D., Devane-Johnson, S., & Corbie-Smith, G. (2016). Superwoman schema, stigma, spirituality, and culturally sensitive providers: Factors influencing African American women's use of mental health services. *Journal of Best Practices in Health Professions Diversity: Research, Education & Policy, 9*(1), 1124–1144.

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scaleof perceived social support. *Journal of Personality Assessment, 5*(2), 30–41.