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What is the Power of Identity? Examining the Moderating Role of Racial Identity Latent Profiles on the Relationship between Race-Related Stress and Trauma Symptomatology among African American Women

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American Women

by

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ABSTRACT

The current study investigated the relationship between race-related stress and trauma symptomatology, and the potential for racial identity profiles to mitigate or exacerbate this relationship in a nontreatment-seeking sample of trauma-exposed African American women ($N = 222$). Bivariate correlation analyses revealed race-related stress was significantly and positively correlated with total PTSD symptoms, hyperarousal symptoms, avoidance symptoms, and reexperiencing symptoms. Racial identity profiles emerged from latent profile analyses and supported a 3-class solution: Undifferentiated, Detached, and Nationalist. The Nationalist profile group experienced significantly higher race-related stress compared to the Detached and Undifferentiated profiles. Moderation analyses revealed racial identity profile type significantly moderated the relationship between race-related stress and total PTSD symptoms and each symptom group, and that the Nationalist profile group buffered the effects of race-related stress on PTSD symptoms. This study illustrates the ways stress from racial discrimination influences PTSD symptomatology and how racial identity may mitigate this relationship.

INDEX WORDS: PTSD, Racial identity, Race-related stress, African American women, MIBI

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1   INTRODUCTION

For African Americans, racism is woven into every aspect of society, and spans a spectrum of subtle, overt, and systemic manifestations. Negative stereotypes, attitudes, and beliefs about African Americans have been documented for decades and actively translate into policies that oppress African Americans in regard to educational, employment, and residential opportunities, as well as interpersonal marginalization and abuse (Williams & Williams-Morris, 2000). This widespread discrimination has led to enormous economic, educational, and health-related disparities that cyclically influence each other (Russell et al., 2018). Racial oppression of African Americans within the United States is a well-known reality for this marginalized population, and has led to a body of literature on racial discrimination and related stressors. Among these understudied areas includes the relationship between racial discrimination and traumatic stress, which has rarely been approached in regard to the experience of African American women or in regard to moderating factors that may or may not be protective. Although the research literature examining the effects of racial oppression on mental health outcomes is established, there continues to be a paucity of research that examines multiple and intersecting forms of oppression, such as racial discrimination and traumatic stress. In particular, these understudied areas have rarely been approached from the consideration of African American women's unique life experiences in the United States or through a risk and resilience framework. This study aims to target this gap, with emphasis on examining the multidimensional construct of racial identity as potentially protective in the relationship between racial discrimination and trauma symptoms among African American women.

1.1   Racial Discrimination and Trauma: Theory and Research Literature

      The research literature on racism and trauma has historically been disconnected. Although experiences of racial discrimination (i.e., the negative treatment of someone due to their race) and trauma have both consistently been found to influence mental health outcomes, there is limited research understanding of how these experiences could be connected among African American women. Several researchers have theorized that race-related stress (i.e., distress that emerges from experiencing racial discrimination) operates as a psychosocial stressor in African American populations (Castle et al., 2011; Clark et al., 1999; Utsey, 1999). According to this framework, distress experienced from racial discrimination has the potential to exacerbate or trigger the development of a range of psychological symptoms and contribute to the mental health disparities that exist in African American populations. Researchers have found racial discrimination experienced by African Americans to be associated with suicidality (Walker et al., 2017), low self-esteem (Harris-Britt et al., 2007), substance use disorders (Clark et al., 2015), generalized anxiety (Soto et al., 2011), severe psychological distress (Mouzon et al., 2017), depression (Russell et al., 2018), social anxiety (Levine et al., 2014), and posttraumatic stress disorder (PTSD; Helms et al., 2012). Scholars have also found that gendered racial discrimination, a combination of racial and gender discrimination, causes significant global psychological distress in African American women (Thomas et al., 2008).

      While the impact of racial discrimination on trauma symptoms in African American populations is understudied, a growing body of research literature in recent years shows that these experiences are significantly related (Roberson & Carter, 2021; Pieterse et al., 2010). Researchers have found that among African Americans, racial discrimination is significantly associated with lifetime PTSD in comparison to other marginalized groups (Chou et al., 2012;

Brooks Holliday et al., 2018). Research has also shown that African Americans experience

higher rates of trauma exposure and PTSD than White Americans (Himle et al., 2009; Roberts et

al., 2011). Among an African American and Latinx clinical sample, researchers found that

experiences of racial discrimination significantly predicted current PTSD diagnosis

longitudinally over the course of 5 years (Sibrava et al., 2019). Studies have also found that

psychosocial stressors similar to racial oppression such as pervasive marginalization (Franklin &

Boyd-Franklin, 2000) and victim blaming following trauma (Dukes & Gaither, 2017) may

aggravate PTSD symptoms among African Americans.

  Thus, from the literature we know that experiences of racial discrimination and trauma

are highly connected for African Americans. Research with African American women

specifically has also revealed a significant relationship between oppression and trauma unique to

the lived experiences of Black women. Scholars have found that this population is significantly

more vulnerable to trauma involving sexual violence compared to White women and have shown

that African American women experience racial discrimination at higher rates than other

racial/ethnic women (Collins, 2000; Sue, 2010; Perry et al., 2013). However, despite the

documented disproportionate rates of racial and traumatic stressors these women face in

comparison to other racial/ethnic women, little research has been conducted with African

American women on this topic (Thomas et al., 2008). This calls for a specific focus on African

American women when examining the relationship between race-related stress and trauma

symptoms.

  Racial discrimination has also been associated with specific PTSD symptom criteria

groups, further highlighting the potential impact of race-related stress on a myriad of PTSD

symptoms (Sheehan et al., 2019; Slavin et al., 1991). Racial discrimination has been found to be

related to 70% of trauma-related symptoms (Kirkinis et al., 2018), including intrusive symptoms, avoidance symptoms, and hypervigilance symptoms (Carter et al., 2020; Sheehan et al., 2019). African American women who experience racial discrimination have also been found to be fearful and hypervigilant of future attacks on themselves and their children (Nuru-Jeter et al., 2009). In a sample of HIV-positive African American women, researchers found racial discrimination positively predicted higher posttraumatic cognitions, or appraisals and thoughts that develop after a traumatic event (Dale & Safren, 2019). Furthermore, researchers have also broadly found that the cumulative effect of racial discrimination can produce self-regulatory behavior such as social avoidance and dissociative episodes (Cloitre et al., 2009; Polanco-Roman et al., 2016). Although there is a growing body of literature linking racial discrimination to PTSD symptoms, research has not firmly established if racial discrimination is more likely to be associated with one specific PTSD symptom group compared to other symptom groups in diverse racial/ethnic populations, including African American women. This further emphasizes the need for continued research on the relationship between distress from racial discrimination and PTSD symptom criteria groups.

Research scholars have also created theoretical frameworks to guide further research examining the relationship between race-related stress and trauma symptomatology. Slavin and colleagues (1991) multicultural stress response model is a useful framework to conceptualize how racial discrimination can ignite a particular stress response that influences mental health disparities in African American populations. Built off the formulation of Folkman and Lazarus' (1984) transactional theory of stress and coping, which proposes an individual's reaction to a stressor is determined by his or her appraisal of that stressor and coping efforts, Slavin and colleagues proposed a model that did not rely on Eurocentric values and assumptions. Instead,

they incorporated several cultural-relevant dimensions throughout the stress process stages, including the higher frequency of potential stressors related to having a minoritized identity, more persistent experiences of discrimination, the prevalence of distressing events that occur at the intersection of class and race, stress related to unique cultural traditions of a group, and subsequent perceived stress appraisals related to minority identification. To provide an example of the relevance of this theoretical framework, consider an African American woman who experiences a verbal attack from a White man. This stressful event could contain a secondary stressful element of possible racist and sexist motivations, which transforms an unpleasant experience to a safety threat, leading to a greater stress response (Slavin et al., 1991; Bowleg et al., 2003; Gómez, 2019). Furthermore, coping efforts may be shadowed by feelings of hopelessness regarding the systemic nature of such oppression, exacerbating this stress response in African American women (Perry et al., 2013).

Due to findings demonstrating an association between racial discrimination and PTSD symptoms, researchers have also considered the potential need to conceptualize the experience of racism as a traumatic experience (e.g., racial trauma, or PTSD caused by racism; Williams et al., 2018). Trauma-related diagnoses such as PTSD have traditionally followed a line of research distinct from other stress-related psychopathology (Carter, 2007). However, a number of researchers have theorized that experiences of racism and racial discrimination operate in the same way as traditionally defined experiences of trauma, with the same capacity to produce PTSD symptoms (Metzger et al., 2020; Bryant-Davis & Ocampo, 2005; Carter et al., 2005; Scurfield & Mackey, 2001; Carter, 2007). Considering structural and historical factors of oppression in the United States, researchers have argued for a traumatic stress framework in approaching symptomatology stemming from racism (Carter, 2007; Helms et al., 2012).

While theoretical frameworks have conceptualized distress from racial discrimination as traumatic, minimal empirical research has been conducted to indisputably support this theory. Currently utilized measures of racial trauma are in need of further validation, and extensive research is needed to gather evidence for or against the notion that race-related stress operates in the same way as traumatic stress or warrants a separate classification. For these reasons, researchers have suggested that incremental steps are needed for a clear understanding of the relationship between racial discrimination and trauma in order to refine how distress from racism should be conceptualized (Williams et al., 2018).

1.2   The Potential Moderating Role of Racial Identity

When investigating the relationship between racial discrimination and trauma outcomes, it is necessary to appreciate the complexity of factors that may influence this relationship, particularly in the context of risk and resilience. Resilience in reaction to adversity, once considered a purely individual and trait-based concept, has evolved overtime and is now recognized as a process that may emerge at individual, familial, community, and cultural levels (Fleming & Ledogar, 2008). Researchers have found that the resilience process is necessary to consider contextually, both in relation to existing risk and with attention to potential outcomes (Fleming & Ledogar, 2008).

Therefore, in conceptualizing the relationship among racial discrimination, trauma experiences, and PTSD, it is important to examine factors that may mitigate or exacerbate these dynamics among African American women. Broadly, racial identity is a significant factor in the context of risk and resilience for marginalized groups (Arbona & Coleman, 2008). The role of racial identity emerges as a potentially salient and reflective method to examine how the experience of racial discrimination can shift depending on one's relationship with their

marginalized membership, and how that may influence traumatic experiences. There are three general types of resilience models (e.g., compensatory, protective, and challenge) that illustrate how resilience factors may shift outcomes following individual or systemic risk exposure (Fleming & Ledogar, 2008). In considering racial identity through this lens, a *protective model* best encapsulates how racial identity may buffer the negative effects of race-related stress on trauma symptoms. In the protective model, the resilience factor (e.g., racial identity) may reduce the effects of a risk (e.g., stress from racial discrimination) on a negative outcome (e.g., trauma symptomatology). Protective factors, such as racial identity, may neutralize or weaken the risk or enhance the positive effect of another resilience factor (Fleming & Ledogar, 2008). Limited research on the protective capacity of racial identity indicators has been produced, but scholars agree on the notable potential for racial identity to serve as a significant contributor to Black resilience (Tyrell et al., 2019; Bernard et al., 2018).

To further consider this construct's protective role, racial identity must be considered within the context of identity theory broadly. Scholars have defined identity theory as a conceptualization of how individuals elect to behave, think, and navigate through life. In essence, identity theory frames individual choices as "a function of the extent to which the behavioral choices are related to a salient (or personally relevant) role-identity" (Sellers et al., 1997). Identity theory scholars have focused on various manifestations of identity, leading to research development in specific identity classifications, including a notable body of literature on racial identity. One such model is William Cross' Nigrescence Theory (Vandiver et al., 2002), which Cross described as the process of becoming Black through a five stage identity acquisition (Cross, 1991, p. 189). The theory led to the development of the Cross Racial Identity Scale and

has been validated across racially and ethnically diverse populations (Cross & Vandiver, 2001;Vandiver et al., 2002; Worrell et al., 2014; Worrell et al., 2004).

However, the stage-based approach to conceptualize African American racial identity has several limitations. This type of model focuses on racial centrality, or the extent to which one defines themselves by race, in stages; this is a linear approach to identity, and does not adequately address the impactful multidimensional quality of the African American experience (Sellers et al., 1997; Vandiver et al., 2009). In 1996, Helms emphasized that racial identity schemas evolve out of each other and different components of racial identity (e.g., racial centrality, racial salience, and racial ideologies) may appear in different combinations or patterns. Therefore, she asserted that profile analysis could be a more valuable approach for investigating racial identity in relation to experiences of racism and racial discrimination in order to capture the multiple facets of racial identity in response to complex oppressive experiences (Helms, 1996). In light of the known limitations of stage-based models of racial identity, Sellers and colleagues (1997) developed the Multidimensional Model of Racial Identity (MMRI) in an attempt to create a cohesive framework of the dimensional nature of African American racial identity development.

The MMRI proposes that African American racial identity is comprised of stable and situational properties that interact and reflect the ways in which racial identity influences behavior, both in specific circumstances [molecular level] and consistently across situations [molar level] (Sellers et al., 1997). The MMRI considers the significance that African Americans place on race in regard to both defining themselves and defining their racial group as a whole, and focuses on understanding African Americans' beliefs that could influence direct and indirect behaviors across four identity dimensions: *Salience, Ideology, Centrality*, and *Regard. Salience*

refers to the extent to which race is a significant aspect of one's self-concept at a certain point in time; of all the MMRI dimensions, salience is the only one that is situational. *Centrality* is defined as the extent to which one defines themselves by race, and *Ideology* is an individual's opinion regarding how other people with the same race membership should function. The MMRI also breaks down *Ideology* into four potential viewpoints; a *nationalist* perspective, which places significance on being of African descent, an *oppressed-minority* philosophy, which focuses on the common struggle experienced by African Americans and other racial minorities, an *assimilationist* viewpoint, which emphasized the commonalities between African Americans and all other Americans, and a *humanist* perspective that places focus on the shared human experience. The final MMRI dimension, *Regard*, is defined as one's judgment of their race and can be considered through *private regard*, or the amount of positivity/negativity one feels towards other African Americans and about their membership of that group, and *public regard*, or the extent to which one believes others view African Americans in a positive or negative manner (Sellers et al., 1997). Of the four dimensions, *Salience* and *Centrality* reflect an understanding of the significance of race, and *Ideology* and *Regard* illuminate what an individual attributes to experiences within the African American community and their own membership within that community. Given that racial identity is better described as multidimensional as opposed to linear, the MMRI lends itself for a unique exploration of potential identity profiles that could emerge through the examination of the African American identity experience. In fact, the MMRI was originally intended to propel forward research on racial identity profiles that encompass the multidimensionality of the Black experience within American society (Bernard et al., 2018).

Research utilizing the MMRI framework is reflected in the Multidimensional Inventory of Black Identity scale (MIBI; Sellers et al, 1997). This measure of racial identity has largely been used in research studies to examine individual dimensions of African American identity on mental health outcomes. However, given the multidimensional nature of Black identity, the field calls for the use of mixture modeling analyses that will highlight the multifaceted quality of how racial identity is experienced in Black communities. Employing the MIBI to produce racial identity latent profiles, rather than examining single dimensions, is minimal in the literature, but some research has been conducted to pinpoint what aspects of identity may promote resilience against systemic and individual adversity within Black populations. For college-aged African American adults, the Integrationist profile, characterized by high assimilationist/humanist ideology and lower private regard/centrality, moderated the relationship between racial discrimination and depression, such that participants with this profile had a significantly stronger association between racial discrimination and depressive symptoms (Banks & Kohn-Wood, 2007). A similar study with African American adolescents found that the Alienated profile, characterized by low centrality, private regard and public regard, moderated the relationship between racial discrimination and depressive symptoms such that racial discrimination was positively associated with depressive symptoms for African American adolescents who fit within this profile group (Seaton, 2009). Research examining the moderating effects of racial identity profiles on the relationship between racial discrimination and imposter syndrome phenomenon among African American college students has also been conducted, but no significant effects were found (Bernard et al., 2018). Racial identity profiles have also been examined in relation to parenting and racial socialization practices in African American and Latinx groups (Christophe

et al., 2020; Cooper et al., 2015), and academic outcomes in African American adolescents (Harper & Tuckerman, 2006).

Given the small number of studies in this area, it has not been possible to definitively identify which types of racial identity profiles are potentially protective in the relationship between race-related stress and psychological outcomes, particularly regarding PTSD outcomes. While there has been some research broadly on the relationship between racial identity and PTSD symptoms in adolescents (Tyrell et al., 2019), the literature examining racial identity profiles in relation to racial discrimination and PTSD is largely nonexistent. However, the research outlined above points to certain dimensions of racial identity, such as low centrality and low private regard, associating with greater negative mood symptoms; suggesting that high centrality or high private regard may be protective. Similarly, racial identity indicators aligning with strong racial centrality and private regard have been found to buffer the negative effects of racial discrimination on mood, anxiety, and substance use disorders (Woo et al., 2019). So, although the research examining the protective role of racial identity in the association between race-related stress and mental health continues to be minimal, previous research is pointing to racial identity as a potentially significant factor to further investigate.

Furthermore, the majority of studies examining the effects of racial identity have utilized college samples, and do not specifically focus on community samples, trauma-exposed samples, or African American women. African American women experience unique stressors that African American men do not, including high rates of interpersonal violence, sexual assault, and unique forms of racial discrimination such as gendered racism (Collins, 2000; Sue, 2010; Perry et al., 2013; Thomas, et al., 2008). Black womanhood often results in the exposure to multiple oppressive and traumatic experiences uniquely dependent on intersections among racism,

sexism, and violence. These experiences may also have a distinct impact on identity development, particularly in the context of risk and resilience in the face of trauma, adverse experiences, and systemic marginalization. This illuminates the need to focus specifically on African American women in the current study, and also highlights the innovative nature of the current research to potentially contribute to an area of research that is greatly understudied.

The identified gaps in the research literature prevent a clearer understanding of the role of racial identity in the relationship between race-related stress and PTSD symptomatology. Examining if certain racial identity profiles emerge as protective or exacerbating in the relationship between race-related stress and PTSD symptoms has enormous potential to inform our understanding of what identity-related factors influence stressful and traumatic experiences. This knowledge may help inform possible interventions to address the negative impact of racial oppression on African American women with trauma-related experiences.

1.3   Current Study

The current study examined the relationship between race-related stress and PTSD symptoms, and assessed whether multidimensional racial identity profiles alleviate or intensify the negative associations between race-related stress and PTSD symptoms in a nontreatment-seeking sample of trauma-exposed African American women. In investigating the impact of race-related stress on PTSD symptoms, and the potential moderating nature of certain racial identity profiles, it is also invaluable to examine the possible circumstances in which the relationships of interest will emerge. For this reason, the current study considered total PTSD symptoms, as well as specific PTSD symptom groups, such as reexperiencing, avoidance, and hyperarousal symptoms, that past studies have identified to be significantly related to racial discrimination (Sheehan et al., 2019; Slavin et al., 1991; Cloitre et al., 2009). The

mood/cognition symptom criteria group in the DSM-5 was not examined in this study due to method limitations; however, research does indicate a potential relationship between racial discrimination and posttraumatic cognitions (APA, 2013; Dale & Safren, 2019).

1.3.1   Specific Aim 1

The current study investigated the relationship between distress from racial discrimination (i.e., race-related stress) and PTSD symptoms (both total PTSD symptoms and PTSD symptom criteria groups) in an urban, nontreatment-seeking sample of trauma-exposed African American women (see Figure 1.1).

Hypothesis 1a. Total race-related stress will be significantly and positively associated with total PTSD symptoms.

Hypothesis 1b. Total race-related stress will be significantly and positively associated with all three of the PTSD symptom criteria groups reflected in the DSM-IV-TR (reexperiencing symptoms, avoidance symptoms, and hyperarousal symptoms).

1.3.2   Specific Aim 2

The current study also investigated the emergence of racial identity profiles in an urban, nontreatment-seeking sample of trauma-exposed African American women, and the potential for such profiles to be protective or exacerbating in the relationship between race-related stress and trauma symptoms (see Figure 1.2).

Hypothesis 2a. We hypothesized that racial identity profiles will emerge from latent profile analyses on the racial identity data collected within our sample.

Hypothesis 2b (partially exploratory). Given the existing research literature has shown that racial identity may serve as a mitigating and exacerbating factor in the relationship between racial discrimination and mental health outcomes, we hypothesized that the relationship between

race-related stress and PTSD symptoms will be exacerbated or attenuated by certain racial

identity profiles, with no particular claim on which profiles may be protective or exacerbating.
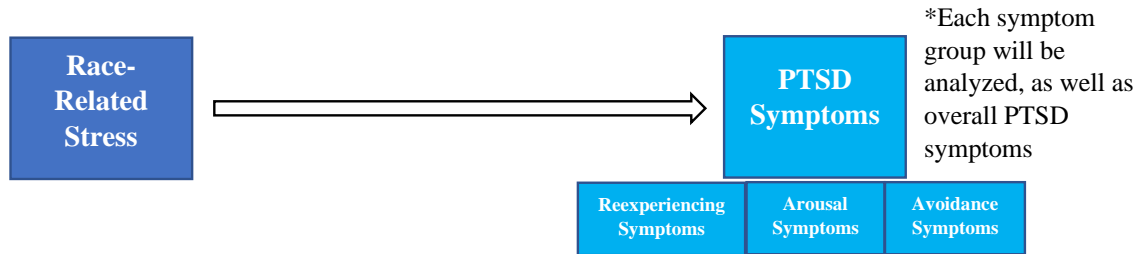
Figure 1.1 Correlation Table (Specific Aim 1)
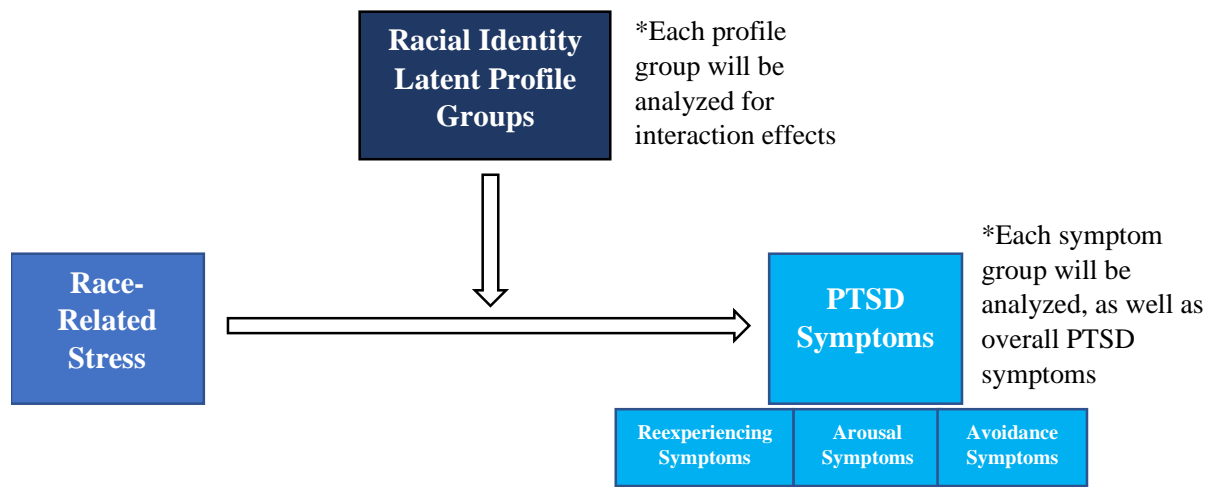
Figure 1.2 Moderation Model (Specific Aim 2)

2   METHOD

2.1   Research Context

The goals of the current study were achieved through secondary data analysis of a subset of data collected through the Grady Trauma Project, a large-scale research study operating out of Emory University. The Grady Trauma Project is funded by the National Institute of Mental Health and examines risk and resilience factors related to the development of PTSD. The Grady Trauma Project aims to investigate the clinical and physiological trauma characteristics of an urban and predominantly African American population seeking primarily physical healthcare at a public hospital in Atlanta, GA.

2.2   Sample

This study included African American adult female participants (N=222), aged 18-64. While researchers have found an N ≈ 300-1000 is roughly the participant sample range in which most commonly used fit indices for mixture models (i.e., latent profile analysis) can be expected to function adequately, researchers have also produced racial identity profiles utilizing latent profile analysis with sample sizes as low as N=157 (Nylund-Gibson & Choi, 2018; Bernard et al., 2018). Participants were screened based on the inclusion/exclusion criteria of the larger study. Exclusion criteria includes exhibiting signs or behaviors of active psychosis and intellectual disability. Only individuals who identified as African American, female, and between the ages of 18-64 were included in this study.

2.3   Procedure

Data for the current study was collected by research assistants and staff working at the Grady Trauma Project. Data has been collected from 2005-present, with the majority of data from the current study collected after 2017. Archival data on 222 participants was available for

secondary data analysis. Due to COVID-19, there was limited additional data collection.

Participants were recruited from waiting rooms in gynecology, primary care, and diabetes

medical (non-psychiatric) clinics at a publicly funded, non-profit hospital serving a mostly low-

resourced population. Participants were approached at random. To be eligible, participants had to

be at least 18 years-old, not actively psychotic, and able to give informed consent. If willing to

participate, individuals signed the informed consent approved by the university institutional

review board (IRB) and the Research Oversight Committee of [Hospital Name Redacted], and an

initial interview was administered with questionnaires regarding trauma history and other

psychological variables. Trained research assistants administered this interview (approximately

45-75 minutes) in private areas of the waiting rooms of the hospital. Participants were

compensated $15 for their time. For a detailed description of study methods refer to Gillespie

and colleagues (2009). All procedures are currently approved by Emory University IRB. All data

analyses were approved by Georgia State University IRB.

3   MEASURES

3.1   Demographics

Demographic information collected from the participants included age, income, education level, gender, and race/ethnicity.

3.2   Race-Related Stress

Distress from racial discrimination (i.e., race-related stress) was measured by gathering participant responses to the Index of Race-Related Stress Brief (IRRS-Brief; Utsey, 1999), which is a 22-item measure of cumulative stress experienced as a result of individual, cultural, and institutional racism. Responses range from 0 (this has never happened to me) to 4 (event happened and I was extremely upset), indicating exposure to three forms of racism, and the severity of stress. Higher scores on each subscales are indicative of higher levels of race-related stress in each respective domain, and higher scores overall indicated higher levels of overall race-related stress. For college and community samples, the IRRS-Brief has shown adequate internal consistency ($\alpha = .64$ to $.81$) across the three subscales (Utsey, 1999; Utsey et al., 2002; Utsey & Hook, 2007). Internal validity was assessed in the current sample and found to be strong ($\alpha = .93$).

3.3   PTSD Symptoms

PTSD symptoms were assessed by generating a combined PTSD score from the Modified Posttraumatic Stress Disorder Symptom Scale (mPSS; Coffey et al., 1998) and the PTSD Checklist for DSM-5 (PCL-5; Weathers et al., 2013), given that 31.6% of participants had completed the mPSS and 68.4% participants had completed the PCL-5.

The mPSS is a reliable and well-validated 17-item measure used to assess PTSD symptoms based on the DSM–IV-TR criteria (American Psychiatric Association, 2000).

Participants rate the degree to which they experienced symptoms (*e.g., persistently been making efforts to avoid thoughts or feelings associated*) on a scale of *0* (not at all) to *3* (five or more times a week/almost always).

The Posttraumatic Stress Disorder Checklist (PCL) is a widely used DSM-correspondent self-report measure of PTSD symptoms, and was recently revised to reflect DSM-5 changes to the PTSD criteria. The PCL-5 is a 20-item self-report measure that assesses symptoms of PTSD on a 5-point Likert (0 = "Not at all" to 4 = "Extremely"). The PCL-5 scores exhibited strong internal consistency, test-retest reliability, and convergent validity, and discriminant validity (Belvins et al., 2015).

To create the combined PTSD variable used in this study, items from the PCL-5 that assessed for symptoms from the mood/cognition criteria group in the DSM-5 were removed. The remaining PCL-5 items were matched to mPSS items. A new Likert scale (0 = "Not at all"; 1 = :A little bit"; 2 = "Moderately"; 3 = "Quite a bit/ Extremely") was developed to reflect the scoring of both measures. The combined measure resulted in 16 items. Scores were summed to create a total score, as well as summed scores for reexperiencing symptoms, avoidance symptoms, and hyperarousal symptoms. Internal validity was assessed in the present study and found to be strong ($\alpha = .95$).

3.4   Racial Identity

The Multidimensional Inventory of Black Identity-Short Form (MIBI-S; Martin et al., 2005) is a 27-item shortened version of the measure (Sellers et al., 1997) and reflects three stable dimensions (centrality, regard, and ideology) of racial identity proposed by the Multidimensional Model of Racial Identity (MMRI). Participants indicate the extent to which they agree or disagree with items on a 7-point Likert scale. The centrality scale measures the extent to which

race is central to the respondents' definition of themselves (*e.g., "I am happy that I am Black"*).

The regard scale, composed of private and public regard subscales, assesses the extent to which

respondents possess positive feelings toward African Americans and if they feel that other

groups have positive feelings toward African Americans (*e.g., private regard, "I feel good about

Black people").* The ideology scale is composed of four subscales, assimilationist, humanist,

minority, and nationalist, and assesses an individual's opinion about how people with the same

race membership should function (*e.g., nationalist, "Black people should not marry

interracially"*). The MIBI has been shown to have moderate to strong internal consistency,

external validity, and structural validity, largely with college samples (Simmons et al., 2008;

Sellers et al., 1997). Internal validity was assessed in the current study and found to be adequate

($\alpha = .76$).

3.5   Trauma Exposure

Trauma exposure was applied as a control variable consideration and measured using the

Traumatic Events Inventory (TEI; Schwartz et al., 2005). The TEI is a 19-item screening

instrument used to assess lifetime trauma history. Each frequency scale for trauma ranges on a

scale from 0 or 1 time to greater than 20 times. Participants were asked to indicate the number of

times they experienced various traumatic incidents, including physical and sexual abuse,

violence, and other traumatic events. Traumatic events are summed to obtain an overall trauma

load score. Previous work has demonstrated that this measure is associated with more severe

symptoms of relevant constructs, such as posttraumatic stress disorder (PTSD) symptoms

(Gillespie et al., 2009).

4   RESULTS

4.1   Data Analysis

Bivariate correlation analyses were conducted in SPSS Statistics 25 to determine significant relationships among the variables of interest, including overall race-related stress, overall PTSD symptoms, PTSD symptom groups, MIBI subscales, and potential cofounding variables like age, income, education level, and trauma exposure. (Specific Aim 1).

Latent profile analyses (LPA) were conducted using Mplus 8.4 to investigate potential racial identity profiles. Given that identity, including racial identity, is highly influenced by developmental processes, age was added as a covariate variable. Dummy coding was automatically applied to each of the profiles that emerged from the LPAs (see results section for classification). Before conducting the main moderation analyses for specific aim 2, potential group differences were examined using one-way analyses of variance (ANOVA) on SPSS 25. We examined if any differences among racial identity profiles exist in relation to race-related stress and PTSD symptoms.

Finally, using PROCESS macro 3.4.1, moderation analyses were conducted with overall PTSD symptoms and each symptom group as dependent variables to determine if racial identity profiles significantly moderate the relationship between race-related stress and PTSD symptoms. Income, education level, and trauma exposure were evaluated as covariates. The PROCESS macro has continuous variables mean-centered and produces the interaction term as the cross-product term of the centered variables.

4.2   Results for Specific Aim 1

4.2.1   Participants

The analytic sample consisted of 222 women, aged 18 to 64 ($M = 36.57$, $SD = 13.10$), who self-identified as Black or African American. The majority of participants were single/never married (62.3%) and had a household monthly income of 1,999 USD or less (66.1%). Regarding education level, 13.6% of participants had completed less than 12th grade, 36.2% completed high school or equivalent, 27.6% had some college or technical school, 18.6% graduate from college or technical school, and 4.1% completed graduate school. Approximately 56.5% of participants reported experiencing five or more traumatic events, and only 5% reported not experiencing any traumatic events. For further information see descriptive statistics that are presented in Table 4.1.

Table 4.1 Descriptive Information for the Overall Sample (N=222)

	M or %	*SD*	Range
Age (years)	*36.57*	*13.100*	18 - 64
Female	100%		
Single/Never Married	62.3%		
Education Status:			
Less than high school	13.6%		
High school/GED	36.2%		
Some college/tech school	27.6%		
Completed college/tech school	18.6%		
Graduate school	4.1%		
Monthly Household Income:			
$0-$499	18.1%		
$500-$999	18.6%		
$1000-$1999	29.4%		
$2000+	33.8%		
Traumatic Events			
1-2	21.5%		
3-4	17.0%		
5+	56.5%		
Race-Related Stress	*56.73*	*20.99*	22-110
Total PTSD Symptoms	*21.37*	*14.91*	0-48

4.2.2   Correlation Analyses

Table 4.2 displays bivariate correlations among race-related stress, overall PTSD symptoms, PTSD symptom groups, MIBI subscales, age, income, education level, and trauma exposure. The analyses revealed that overall race-related stress was significantly and positively correlated with total PTSD symptoms ($r = .29$, $p < .01$), PTSD hyperarousal symptoms ($r = .27$, $p < .01$), PTSD avoidance symptoms ($r = .27$, $p < .01$), and PTSD reexperiencing symptoms ($r = .27$, $p < .01$). Total trauma exposure was significantly and positively correlated with race-related stress ($r = .33$, $p < .01$), total PTSD symptoms ($r = .59$, $p < .01$), PTSD hyperarousal symptoms

($r= .58$, $p < .01$), PTSD avoidance symptoms ($r= .54$, $p < .01$), and PTSD reexperiencing symptoms ($r= .53$, $p < .01$). Age was significantly and positively correlated with total PTSD symptoms ($r= .39$, $p < .01$), PTSD hyperarousal symptoms ($r= .31$, $p < .01$), PTSD avoidance symptoms ($r= .26$, $p < .01$), and PTSD reexperiencing symptoms ($r= .31$, $p < .01$). Education was positively correlated with race-related stress ($r= .14$, $p < .05$).

Table 4.2 Bivariate Correlations among Race-Related Stress, PTSD, MIBI Scales, and Covariate Variables (N=222)

	1.	2.	3.	4.	5.	6	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	M	SD
1. Total IRRS	-																56.73	20.99
2. Total PTSD	.286**	-															21.37	14.91
3. Re-experiencing Symptoms	.272**	.917**	-														6.29	4.95
4. Avoidance Symptoms	.270**	.944**	.784**	-													7.84	5.94
5. Hyperarousal Symptoms	.268**	.940**	.802**	.839**	-												7.26	5.05
6. Centrality Subscale	.271**	-.121	-.080	-.095	-.170*	-											5.02	1.13
7. Private Reg. Subscale	.143*	-.200**	-.156*	-.189**	-.208**	.464**	-										6.30	.81
8. Public Reg. Subscale	-.280**	-.202**	-.138*	-.191*	-.242**	.018	.173**	-									4.37	1.28
9. Assim. Subscale	-.144*	.090	.072	.088	.099	.210**	.272**	-.056	-								5.74	1.03
10. Humanism Subscale	-.087	.076	.076	.050	.093	-.149*	.058	.228**	.311**	-							5.73	1.07
11. Oppr. Min. Subscale	-.015	-.055	-.059	-.061	-.038	.069	.162*	.190**	.330**	.426**	-						5.01	1.26
12. Nationalism Subscale	.274**	-.092	-.071	-.097	-.094	.454**	.330**	-.035	.143*	-.079	.125	-					4.18	1.28
13. Trauma Exposure	.330**	.589**	.530**	.544**	.580**	-.147*	-.207**	-.271**	.066	.112	-.024	.010	-				5.68	3.89
14. Age	.038	.309**	.309**	.260**	.306**	-.228**	-.075	.004	.017	.192**	.014	-.050	.314**	-			36.57	13.10
15. Income	-.068	-.114	-.122	-.106	-.089	-.046	-.159	-.110	-.015	.010	-.004	-.006	.041	-.146*	-		2.70	1.29
16. Education	.135*	-.101	-.087	-.086	-.091	.129	.143*	-.169*	.080	-.056	.045	.133*	.086	-.004	.261**	-	2.28	1.78

*Note. *Significant at .05 **Significant at .01*

4.3   Results for Specific Aim 2

4.3.1   Latent Profile Analyses

Several steps were taken in Mplus to determine the best-suited LPA model. In the first step, k profiles were run to determine the best fitting model. The factors that were considered in this determination include the Loglikelihood (LL), Akaike Information Criterion (AIC), Bayesian Information Criterion (BIC), Sample-Size Adjusted Bayesian Information (SABIC), Vuong-Lo-Mendell-Rubin Likelihood Ratio Test (VLMR-LRT), Adjusted Lo-Mendell-Rubin Likelihood Ratio Test (Adjusted LMR-LRT), BLRT (bootstrapped LRT), and entropy (Muthén & Asparouhov, 2008; Nylund et al., 2007; Masyn, 2013). The smaller the AIC, BIC, and SABIC, the better the model fit (D'Unger et al., 1998; Nylund-Gibson & Choi, 2018). Significant p-values on the likelihood tests, (i.e., VLMR-LRT, Adjusted LMR-LRT and BLRT), suggest that the k-class model is more likely to represent the data than the k-1 profile model (Asparouhov & Muthén, 2012). Finally, entropy was considered as an indicator to determine certainty of classification (Masyn, 2013). Entropy values range from 0 to 1, with values greater than 0.8 indicating greater classification certainty (Celeux & Soromenho, 1996).

Table 4.3 summarizes goodness-of-fit indices yielded from the LPAs. The entropy values decreased going from the 2-, 3-, 4-, and 5-class solution. The entropy values suggested that the 2-class solution may be a strong contender for best fit, with the 3-class solution as a possible option as well. The 2-class solution had slightly higher entropy and slightly lower LL compared to the 3-class solution, but consideration of other goodness of-fit indicators shifted the overall assessment of best fit. Specifically, the 3-class solution had lower AIC, BIC, and SABIC values, and smaller VLMR-LRT and Adjusted LMR-LRT *p*-values. This suggested that it was a superior fit compared to the 2-class solution. The 3-class solution also reflected profiles discovered in

previous research (Seaton, 2009; Thomas et al., 2015; Banks and Kohn-Wood, 2007; Richardson et al., 2015; Bernard et al., 2018), contributing to the conceptual justification for the 3-class solution. The 4-class and 5-class solutions were assessed and quickly ruled out as superior solutions given the VLMR-LRT and Adjusted LMR-LRT values were both nonsignificant and entropy was lower. Thus, the 3-class solution was retained (Figure 4.1). Profiles were automatically dummy coded as class 1, class 2, and class 3 in Mplus.

Table 4.3 Summary Statistics Describing Latent Profile Analysis Fit Indices

	2-Class	3-Class	4-Class	5-Class
Entropy	0.944	0.909	0.843	0.825
Log Likelihood	−2303.949	−2256.778	−2217.329	−2198.120
Free parameters	22	30	38	46
AIC	4651.898	4573.555	4510.657	4488.239
BIC	4726.757	4675.635	4639.959	4644.762
SABIC	4657.037	4580.563	4519.534	4498.985
VLMR-LRT (p)	0.0109*	0.0025*	0.2138	0.2279
Adjusted LMR-LRT	0.0119*	0.0028*	0.2205	0.2356
BLRT p	<.001*	<.001*	<.001*	<.001*
Class 1 n	19	23	77	15
Class 2 n	203	18	15	24
Class 3 n		181	24	71
Class 4 n			106	23
Class 5 n				89

Note. AIC=Akaike information criterion; BIC=Bayesian information criterion; SABIC= Sample-Size Adjusted Bayesian Information; VLMR-LRT= Vuong-Lo–Mendell–Rubin Likelihood Ratio Test; Adjusted LMR-LRT=Adjusted Lo-Mendell-Rubin Likelihood Ratio Test; BLRT=Bootstrapped Likelihood Ratio Test.

Class 1 (n=23; mean age=34.13) had lower than average scores on public regard (e.g., how one believes others view Black people) and higher scores on nationalism (e.g., placing significance on being of African descent), resembling the race-focused subgroup found by Banks and Kohn-Wood (2007) and the defensive/buffering profile reported by others (Richardson et al., 2015; Seaton, 2009). Particularly in the context of this group also having relatively higher centrality scores (e.g., the extent to which one defines themselves by race) as well as relatively higher scores on private regard (e.g., how one feels about being Black), this subgroup appeared to have pro-Black attitudes and was named Nationalist.

Class 2, the smallest subgroup (*n*=18, mean age=38.5), was lower than average on all subscales, with particularly deviant scores on the centrality, private regard, and nationalism subscales. However, scores on public regard was close to average, indicating this subgroup appeared to have negative views about being Black, did not centrally define themselves by a Black identity, and also did not perceived others as having particularly negative attitudes toward Black individuals. This was similar to the detached profile found by Seaton (2009) and Thomas et al. (2015). Thus, this subgroup was named Detached.

Class 3 was the largest subgroup (*n*=181; mean age=36.68) and had relatively average scores on all subscales. This subgroup resembled profile findings from other studies (Banks & Kohn-Wood, 2007; Bernard et al., 2018) and consistent with this, was named Undifferentiated.

Given the small number of individuals classified within the Nationalist and Detached profiles, we examined the original data files and confirmed the absence of any data entry errors. Furthermore, there is evidence that when examining trauma, profiles characterizing a small segment of the sample may emerge, which is corroborated by previous research (i.e., <5%; Holt et al., 2017; Contractor et al., 2018). We also entertained the possibility that the largest subgroup was better characterized by two or more subgroups by examining the profiles developed in the 4-class and 5-class solutions (Table 4.3) and found that the large profile group found in the 3-class solution persisted.
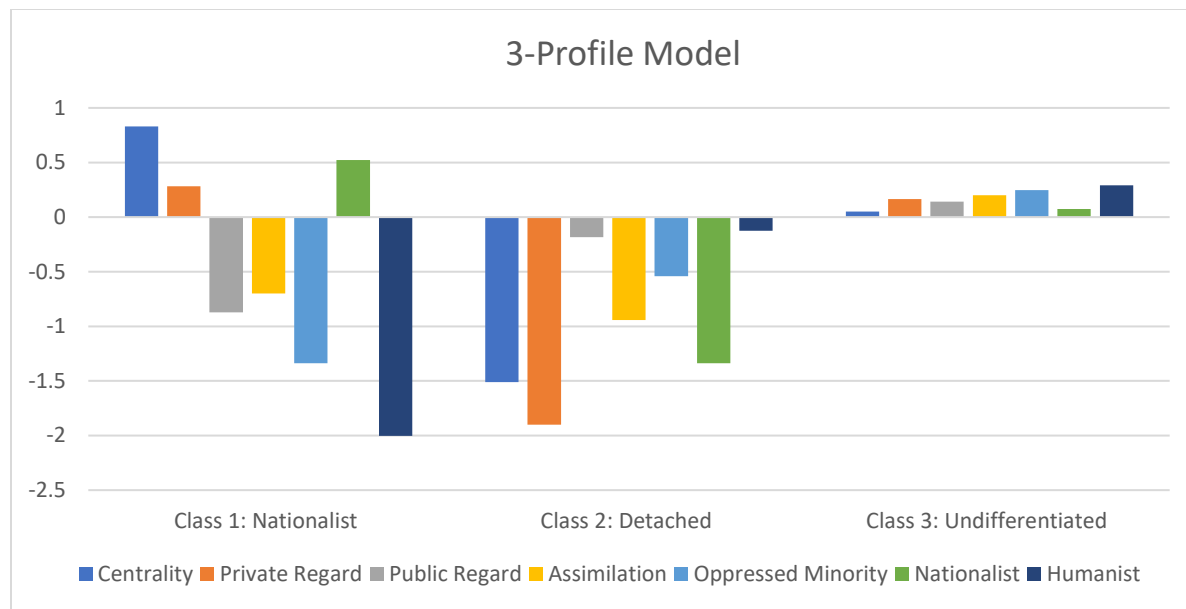
Figure 4.1 Racial Identity Latent Profiles Depicted by Standardized MIBI Subscales Means

4.3.2   *Moderation Analyses*

Before conducting the main moderation analyses for specific aim 2, we examined potential group differences using one-way analyses of variance (ANOVA) on SPSS 25. ANOVA analyses were used to investigate if any differences among racial identity profiles exist in relation to race-related stress and PTSD symptoms (Figure 4.2). This step was taken to provide a more nuanced understanding of potential group differences among racial identity profiles. Using Tukey's post-hoc tests to correct for type I error, we found that the Nationalist profile group had significantly greater levels of overall race-related stress compared to the Detached profile group ($p = .01$) and the Undifferentiated profile group ($p = .04$). There were no significant differences among the three profile groups in overall PTSD symptoms ($p = .92$; $p = .88$; $p = .10$). There were also no significant group differences among the three profile groups in reexperiencing symptoms ($p = .84$; $p = .95$; $p = .90$), avoidance symptoms ($p = .10$; $p = .10$; $p = .98$), or hyperarousal symptoms ($p = .73$; $p = .52$; $p = 1.00$).
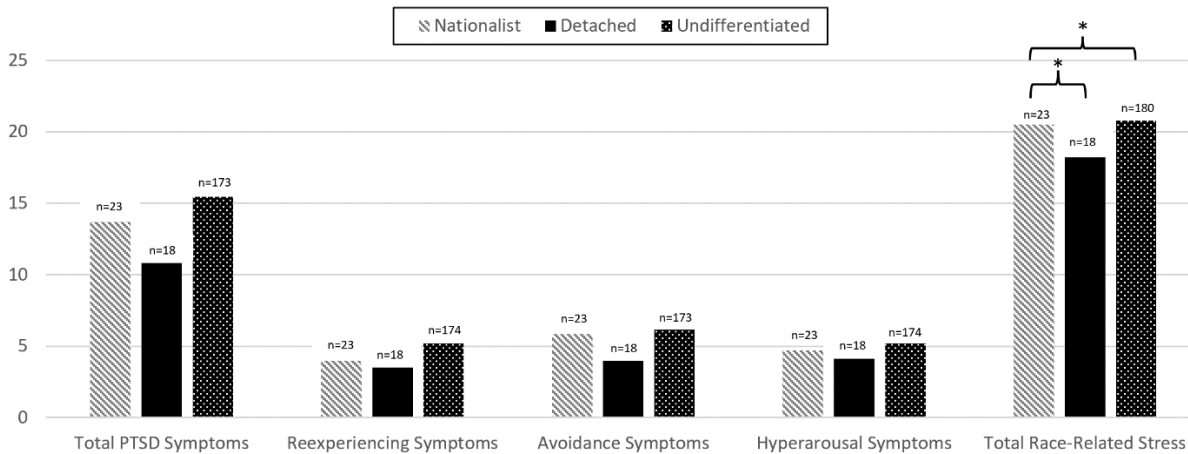
* *p* < .05

Figure 4.2 Group Differences in Outcomes based on Racial Identity Profile

Moderation analyses are illustrated in Figures 4.3, 4.4, 4.5, and 4.6. In the first model

examining total PTSD symptoms as an outcome (*n*=196), the moderation analysis yielded a

significant overall model (R^2 = .64, *p* <.001). The results revealed that race-related stress (*b* =

.10, *t* = 2.28, *p* = .024), racial identity (*b* = .17, *t* = .13, *p* = .90), and their interaction (*b* = .15, *t* =

2.40, *p* = .02) accounted for significant variance even with accounting for total trauma exposure

(*b* = 2.17, *t* = 9.62, *p* < .001) in the model. Racial identity and its interaction with race-related

stress was also statistically significant ($R^2\Delta$ = .02, *F* = 5.77, *p* = .02). Follow-up analyses

examining conditional effects of different profile groups of the moderator (racial identity)

revealed significant differences among the slopes of the profile groups, whereby the Detached

profile group (*p* = .02, CI = .01 to .18) and the Undifferentiated profile group (*p* = .00, CI = .05

to .23) had a steeper slope than the Nationalist profile group. Thus, for the Nationalist profile

group, as race-related stress increased, PTSD symptoms stayed steady, and for those individuals

within an Undifferentiated or Detached profile group, PTSD symptoms increased as race-related

stress increased (Figure 4.3). This pattern held when controlling for education, income, and trauma exposure.

In the second model examining reexperiencing symptoms as an outcome (n=197), the moderation analysis also yielded a significant overall model ($R^2 = .57$, $p <.001$). Race-related stress ($b = .03$, $t = 2.00$, $p = .05$), racial identity ($b = -.04$, $t = -.08$, $p = .93$), and their interaction ($b = .04$, $t = 2.00$, $p = .05$) accounted for significant variance even with trauma exposure ($b = .64$, $t = 7.98$, $p < .001$) in the model. Racial identity and its interaction with race-related stress was statistically significant ($R^2\Delta = .014$, $F = 4.02$, $p = .05$). Follow-up analyses examining conditional effects of different profile groups of the moderator (racial identity) again revealed significant differences among the slopes of the profile groups, whereby the Detached profile group ($p = .047$, CI = .00 to .06) and the Undifferentiated profile group ($p = .009$, CI = .01 to .08) had a steeper slope than the Nationalist profile group. Similar to the first moderation, reexperiencing symptoms stayed steady as race-related stress increased for the Nationalist group, and for those individuals within an Undifferentiated or Detached profile group reexperiencing symptoms increased as race-related stress increased (Figure 4.4). Education, income, and trauma exposure were again added as covariate variables.

The third model examined avoidance symptoms as the outcome (n=196). The overall model was significant again ($R^2 = .59$, $p <.001$). Race-related stress ($b = .04$, $t = 2.12$, $p = .03$), racial identity ($b = -.15$, $t = -.26$, $p = .80$), and their interaction ($b = .06$, $t = 2.19$, $p = .03$) accounted for significant variance even with trauma exposure ($b = .80$, $t = 8.39$, $p < .001$) in the model. Once again, racial identity and its interaction with race-related stress was statistically significant ($R^2\Delta = .02$, $F = 4.82$, $p = .03$). Follow-up analyses examining conditional effects of different profile groups of the moderator (racial identity) revealed significant differences among

the slopes of the profile groups, whereby the Detached profile group (p = .03, CI = .00 to .07) and the Undifferentiated profile group (p = .01, CI = .02 to .09) had a steeper slope than the Nationalist profile group. Thus, members of the Nationalist profile group experienced steady avoidance symptoms as their race-related stress increased. Members of the Undifferentiated and Detached profile groups experienced increased avoidance symptoms as race-related stress increased (Figure 4.5). Education, income, and trauma exposure were again added as covariate variables.

The final moderation model investigated hyperarousal symptoms as the outcome (n=197). The overall model was significant again (R^2 = .63, p <.001). Race-related stress (b = .03, t = 2.09, p = .04), racial identity (b = .39, t = .84, p = .40), and their interaction (b = .05, t = 2.33, p = .02) accounted for significant variance even with trauma exposure (b = .74, t = 9.59, p < .001) in the model. Racial identity and its interaction with race-related stress was again statistically significant ($R^2\Delta$ = .02, F = 5.46, p = .02). Follow-up analyses investigating conditional effects of different profile groups of the moderator (racial identity) once again revealed significant differences among the slopes of the profile groups, whereby the Detached profile group (p = .04, CI = .00 to .06) and the Undifferentiated profile group (p = .01, CI = .01 to .08) had a steeper slope than the Nationalist profile group. Examination of the interaction plot revealed the Nationalist profile group members' hyperarousal symptoms actually decreased slighted as their race-related stress increased. Once again, the Undifferentiated and Detached profile groups experienced increased hyperarousal symptoms as race-related stress increased (Figure 4.6). Education, income, and trauma exposure were again added as covariate variables for this final moderation model.
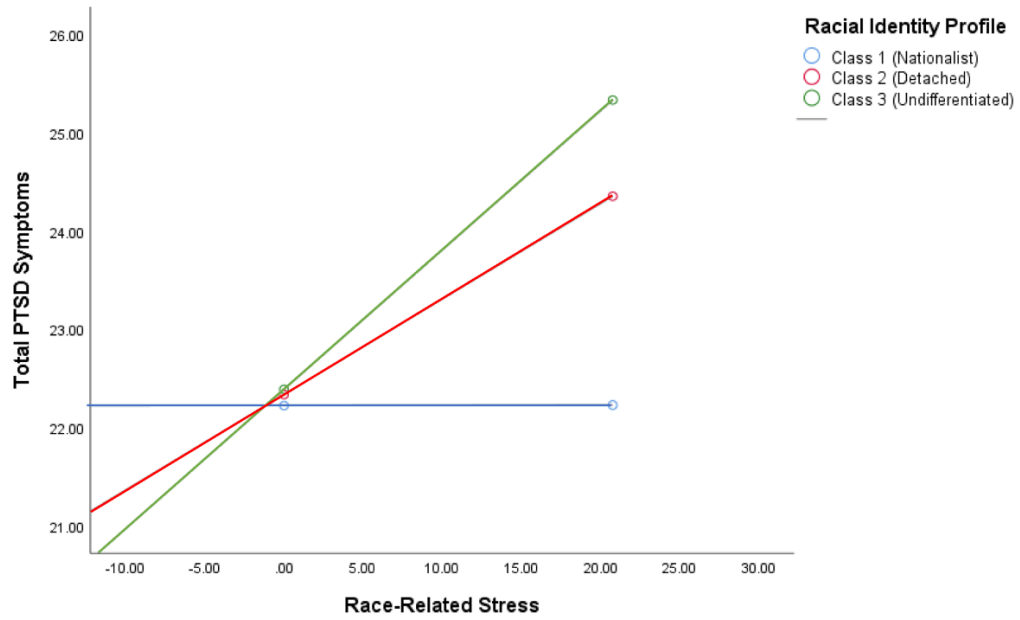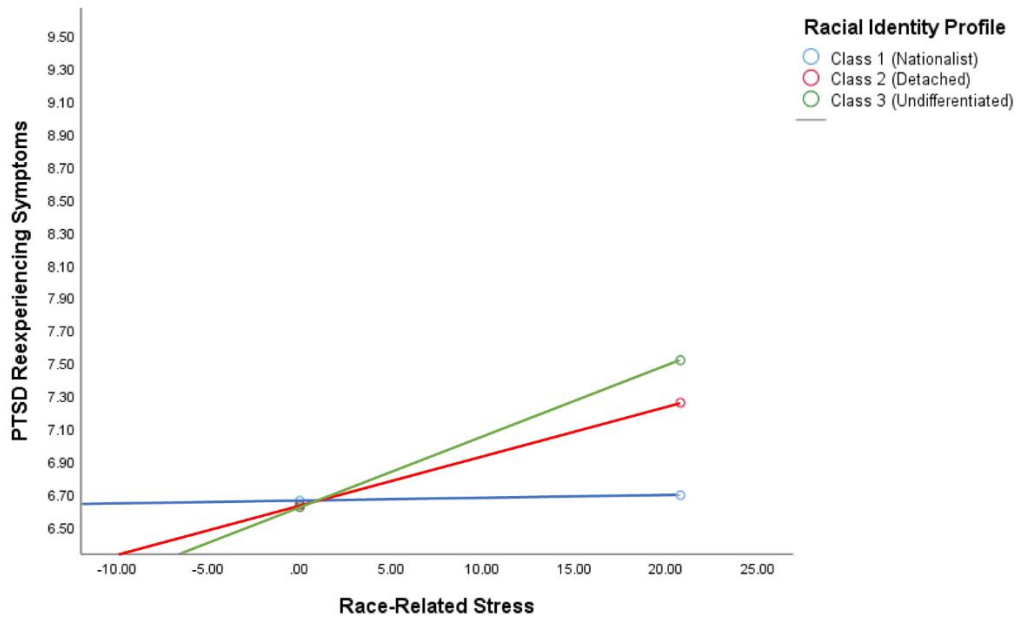
Figure 4.3 Moderation 1 (Total PTSD Symptoms)
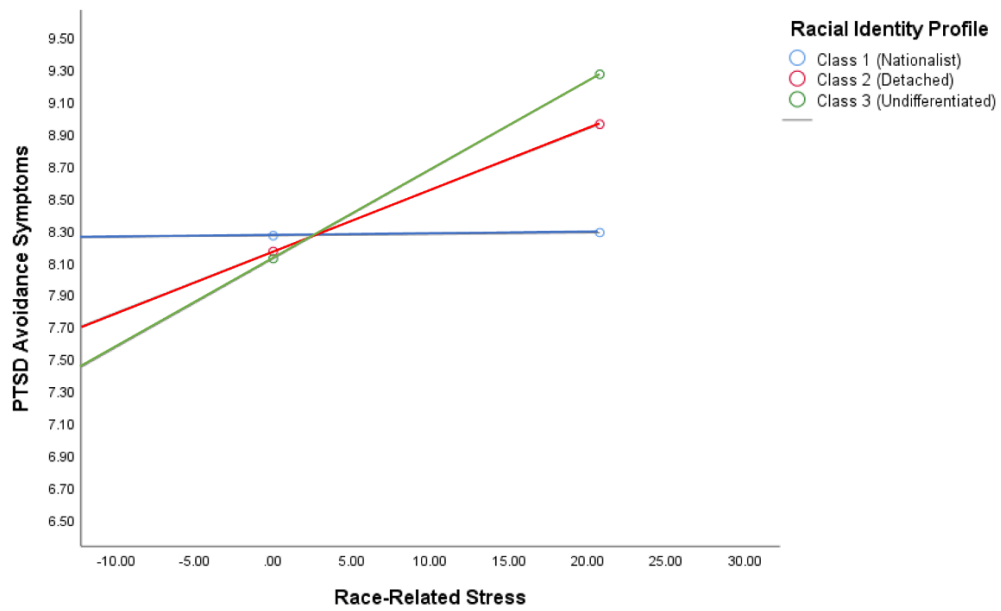

Figure 4.4 Moderation 2 (Reexperiencing Symptoms)

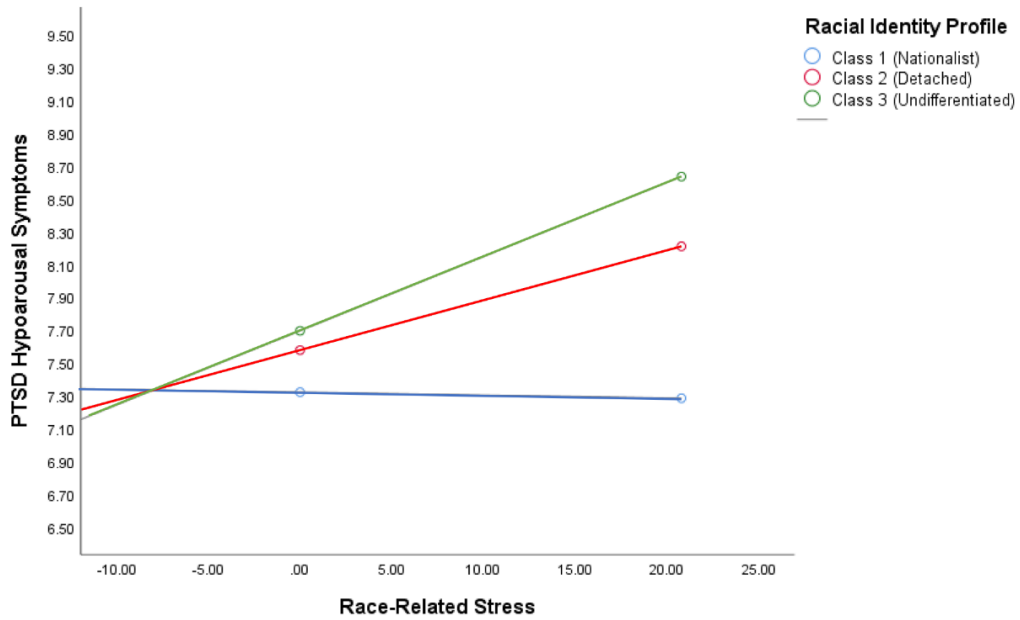*Figure 4.5 Moderation 3 (Avoidance Symptoms)*

Figure 4.6 Moderation 4 (Hyperarousal Symptoms)

DISCUSSION

The present study investigated the relationship between race-related stress and PTSD symptoms, the emergence of racial identity latent profiles, and the potential for such profiles to moderate this relationship. These questions were investigated within a nontreatment-seeking sample of trauma-exposed African American women living in Atlanta, Georgia.

As hypothesized, total self-reported race-related stress was significantly and positively associated with total self-reported PTSD symptoms, and total race-related stress was also significantly and positively associated with all three of the PTSD symptom criteria groups reflected in the DSM-IV-TR. Hypotheses from Specific Aim 2 were also supported by the analyses; three distinct racial identity profiles emerged from the sample, and significant moderation effects were found. The results of the current study illustrated that race-related stress, PTSD, and trauma exposure are highly correlated experiences among this participant sample of African American women. The results also indicated that distinct racial identities exist among this group and significantly influence the impact of race-related stress on overall PTSD symptoms and all PTSD symptom groups, with a particularly strong interaction effect with hyperarousal and avoidance symptoms. When further examining the racial identity profiles that emerged, the Nationalist profile group appeared to serve as a buffer against the negative influence of race-related stress on PTSD symptoms, and the Detached and Undifferentiated groups appeared to be exacerbating the influence of race-related stress on PTSD symptoms.

4.4   Race-Related Stress and PTSD Symptomatology

The results from the bivariate correlation analyses corroborate the existing literature linking distress from racial discrimination to overall trauma symptoms for African Americans (Pieterse et al., 2010; Chou et al., 2012; Brooks Holliday et al., 2018; Sibrava et al., 2019), and

offers evidence of this relationship with African American women specifically, which has been minimally researched. The current study also aimed to investigate if race-related stress is associated more with one PTSD symptom group compared to another, as this is an understudied question within research as well. The results revealed that race-related stress is significantly correlated with all three symptom groups (e.g., reexperiencing, avoidance, and hyperarousal), suggesting the experience of racism and the distress that emerges from it is similarly associated with all types of trauma symptomatology in African American women. Although no causal relationship can be established, the results do align with the minimal literature demonstrating that racial discrimination is associated with avoidance symptoms, hyperarousal symptoms, and reexperiencing symptoms among African Americans (Carter et al., 2020; Sheehan et al., 2019). Additional research on the relationship between distress from racial discrimination and PTSD symptom groups is needed, particularly with African American women, as the current project presents novel findings that require further substantiation.

The current results also encourage further research on racial trauma, or the conceptualization of racism as a traumatic stressor (Williams et al., 2018). While trauma and racism have conventionally existed as separate bodies of literature, research utilizing a traumatic stress framework that incorporates systemic experiences of oppression is substantiated from the results of the current study (Carter, 2007; Helms et al., 2012). Scholars in support of the racial trauma model have argued that the need to conceptualize racism as a traumatic experience stems from the nature of how racism operates in Western societies. Particularly within the United States, racist incidents can be reoccurring yet subtle, expected yet also sudden, while simultaneously occurring within a societal context that has systemically upheld such oppression. Thus, given the growing body of literature that verifies the significant relationship between

racism and trauma experiences, including the current study, critical examination of how researchers conceptualize trauma is necessary. The field must consider if the existing framework for conceptualization of trauma responses is inclusive of the experiences of minoritized individuals, or if a separate, context-informed framework is required to appreciate the traumatic effects of oppressive experiences on African Americans and other racially marginalized groups.

4.5   Racial Identity in the Context of Risk and Resiliency

Racial identity scholars have long theorized about the potential for racial identity to enhance Black resilience. Given the mixed and minimal body of research on racial identity, racial discrimination and mental health outcomes, the current study aimed to examine the emergence of racial identity profiles in a population of trauma-exposed, nontreatment-seeking African American women. We further aimed to examine the potential for such profiles to contribute to resilience against the negative effects of race-related stress on trauma symptoms.

The racial identity profile groups that emerged from the current sample largely reflect profiles that have been found in the literature, with some important points of distinction. The Undifferentiated profile, characterized by scores mapping onto the mean for all subscales, is an established profile in the small body of literature that exists utilizing the MIBI to produce racial identity profiles (Banks & Kohn-Wood, 2007; Bernard et al., 2018; Scottham & Smalls, 2009). Similarly, the Detached profile (e.g., lower than average on all subscales with particularly low private regard, centrality, and nationalism scores and higher public regard) mirrors MIBI profiles in other studies (Seaton, 2009; Thomas et al., 2015). The Nationalist profile, with scores high on nationalism/private regard/centrality subscales and low on public regard, also reflects previous literature findings (Banks & Kohn-Wood, 2007; Seaton, 2009; Richardson et al., 2015). In contrast to other studies in this area, the Undifferentiated profile accounted for 81.5% of the

current sample, which is a much larger Undifferentiated profile group than other researchers have found (Banks & Kohn-Wood, 2007; Bernard et al., 2018; Scottham & Smalls, 2009). In fact, the majority of studies reflect a far more even distribution of participants across profile groups (Banks & Kohn-Wood, 2007; Bernard et al., 2018; Scottham & Smalls, 2009; Seaton, 2009). Thus, when considering the overarching patterns found through this research, the majority of African American women in this study can be described as largely indifferent towards their experience being Black, with a distinct group of women deeply connected to their racial identity and the world's perception of them (Nationalist), and another small group actively detached from their Blackness (Detached), both in how they view themselves and in how the world sees them.

In contextualizing the racial identity profile groups that emerged from the current study, it is necessary to consider the unique experiences of the sample and how this may influence racial identity development. Scholars have described racial identity as both a process and journey that is produced from self-reflection on one's racial existence privately and publicly (Sellers et al., 1997; Vandiver et al., 2002). Whether an acquisition that occurs over time or an ever-changing evolution of self, racial identity development requires a level of internal contemplation (Murray-García, et al., 2005). It is this concept of identity formation that may inform the emergence of the exceptionally large Undifferentiated racial identity profile group in the current study. The sample in this study has experienced significant traumatic and systemic stressors that have impacted access to education, wealth, and overall stability. These characteristics are a likely departure from the typical college and high school student study samples that have been used in MIBI profile research, although the rates of trauma exposure among these study sample groups are rarely reported (Banks & Kohn-Wood, 2007; Bernard et al., 2018; Seaton, 2009; Shelvin et al., 2014). It is possible that the participants in the current study have not had access to

experiences and/or opportunities that naturally allow for self-exploration and critical consideration of racial identity, such as certain educational environments (Lannegrand-Willems & Bosma, 2006). The life experiences of the African American women in this project may demand a consistent focus on day-to-day survival, and the need to persist above the daily obstacles of life that could leave little room for identity exploration. Furthermore, research on responses to race-related stress suggests another explanation for the large Undifferentiated group. It is possible the majority of African American women in this study believe the most effective and adaptive way to navigate the world as a Black woman is with indifference, and hold an undistinguished view of their racial identity as a means to protect themselves (Volpe et al., 2019). Given the multiple stressors that are likely already present in the lives of these African American women, it could be that an indifferent view on racial identity is adopted as a resiliency response to eliminate the possibility of additional stress associated with holding multiple marginalized identities in the face of racism encounters.

These areas of research may also inform why the Nationalist profile is so modest. Since this profile is characterized by both a deep connection to being African American and a strong awareness of the historical and systemic oppression that informs how the world views Black individuals, an Afrocentric worldview may be viewed as mentally taxing or is a perspective that has not readily developed. The Detached profile group that emerged in the current study also can be contextualized within the larger narrative of navigating life as an African American woman in United States and the resiliency it requires. The Detached profile is distinct because it is low on all subscales, but relatively higher on public regard compared to the low private regard, nationalism, and centrality scores. For this small group of African American women, they have a negative perception of themselves as Black women and also believe that other's view of Black

people are typical, indicating an under-emphasis on the societal marginalization that African Americans often face. This should again be considered within the larger context of being a Black woman in the United States; with statistically more stressors and traumatic experiences to navigate, internally and externally disengaging from racial realities could reflect a need to protect against additional stressors (Mekawi et al., 2020; Thomas et al., 2008).

The moderation analyses in this study were applied to further explore the risk and resilience potential of the racial identity profiles described above. The results offer a powerful picture of how risk and resilience may be unfolding through the lens of considering how racial identity influences the relationship between race-related stress and trauma symptomatology among African American women. Furthermore, the use of a multidimensional rather than linear approach to measuring racial identity allowed for the exploration of multiple facets of racial identity that has been limited in the literature; providing an integrative and holistic lens to consider the buffering potential of racial identity. The multidimensional racial identity profiles that emerged from the MIBI significantly moderated the relationship between race-related stress and overall trauma symptoms, as well as each symptom group, with a particularly strong effect found with hyperarousal and avoidance symptoms. Thus, the role of racial identity emerged as a salient influence on the impact of race-related stress on trauma symptoms for African American women. It appears that the appraisal of racial oppression is notably impacted by one's relationship with their racial membership, which then influences experiences of trauma symptoms. How African American women relate to their Black identity significantly influenced the relationship between race-related stress and avoidance and hyperarousal symptoms in particular. This suggests that the ways in which African American women in this study viewed their own Blackness informed how they responded to the stress of racism experiences; through

the potential need in their contextual environments to avoid or be hyper-attentive to potential

threatening racist experiences. In applying Slavin and colleagues (1991) multicultural stress

response model, racial identity is shaping how an African American women appraises an

experience of racial discrimination so that the stress response are activated, influencing potential

elevations in certain PTSD symptoms such as avoidance and hyperarousal seen in the current

study. At this point in time, the literature examining racial identity profiles in relation to racial

discrimination and PTSD is largely nonexistent, making these findings particularly compelling.

Additional research in this area is necessary to substantiate the results from the current study,

particularly in regard to the markedly strong effects found with hyperarousal and avoidance

symptoms.

The implications of these findings can be more adeptly explored by examining how each

racial profile individually functions within these interaction effects (Figures 4.3-4.6). In the

above discussion on the racial identity profiles that emerged from the current study, the

emergence of the large, Undifferentiated profile group was considered within the larger context

of risk and resilience and the plenitude of stressors experienced by African American women.

Given the need to often survive day-to-day stressors and the potential lack of opportunities to

engage in self-reflective identity development, an indifferent racial identity may have been

adopted by the majority of the African American women in this sample as a protective measure.

However, when examining the results of moderation analyses for the Undifferentiated profile, it

is revealed that as race-related stress increased for this group, overall trauma symptoms, as well

as each symptom group, also increased. This finding suggests that an indifferent racial identity

does not buffer the negative effects of race-related stress on trauma symptoms, and may even

exacerbate that relationship. The Detached profile followed a similar pattern, with overall trauma

symptoms and each symptom group increasing with increased race-related stress. Individuals in the Detached subgroup hold attitudes that reflect some dislike for being Black and do not experience strong racial belonging, which may mean they are more likely to have poor self-esteem that leads to increased negative outcomes like PTSD symptoms (Mekawi et al., 2020; Bhar et al., 2008). In fact, for both members of the Undifferentiated and Detached profile groups, limited use of cultural coping strategies in the face of multifaceted stressors could be leading to negative mental health outcomes like PTSD, particularly in the context of racism (Mekawi et al., 2020).

It was only the Nationalist profile that demonstrated a notably distinctive effect on the relationship between race-related stress and PTSD symptoms. Interestingly, the Detached and Undifferentiated profiles showed significant differences from the Nationalist profile in follow-up analyses of conditional effects of different profiles; the Detached profile and the Undifferentiated profile both had significantly steeper positive slopes than the Nationalist group in all four moderation models. In other words, for those with a Nationalist racial identity profile only, PTSD symptoms stayed steady as race-related stress increased, and even decreasing slightly for the hyperarousal symptom group. Hence, for African American women, a Nationalist worldview, in comparison to the other profile groups, may mitigate the negative effects of race-related stress on PTSD. This finding is even more compelling considering the ANOVA analyses which revealed that there were significant group differences in race-related stress, with the Nationalist group experiencing significantly higher levels of race-related stress compared to the Detached and Undifferentiated group. This finding highlighted that even though individuals in the Nationalist profile group are reporting experiencing higher levels of race-related stress, they are also experiencing the lowest PTSD symptoms in comparison to the other profile groups.

Furthermore, despite experiencing significantly higher levels of race-related stress, holding an

Afrocentric worldview (i.e., the centering Black values, ideas, and identity) seemed to provide a

protective barrier against the negative effects of such stress on PTSD symptoms for this group,

operating as a point of resilience in the larger context of racial and traumatic stressors. There are

several reasons why this may be. Given that the women in the Nationalist group experienced

significantly higher race-related stress, this may lead to mastery of effective coping responses to

manage such stress over time (Neblett & Carter, 2012). Furthermore, the awareness that society

does not view African Americans positively (i.e., low public regard) may lead individuals to

develop compensatory coping strategies that counter this reality, such as denouncing racism

(Neblett & Carter, 2012). Further research is necessary to confirm the mechanisms involved in

these patterns, as it is possible coping strategy is one of many factors contributing to the

protective potential of the Nationalist profile group.

Given the novelty of the current project, it is not possible to definitively identify which

types of racial identity profiles are protective or not in the relationship between race-related

stress and PTSD outcomes. However, the results of the current study do align with the existing

limited research in this area. Researchers have found that dimensions of racial identity, including

low centrality and low private regard, are associated with greater negative mood symptoms,

suggesting that high centrality or high private regard, which are characteristics of the Nationalist

profile group in the current study, may be protective (Tyrell et al., 2019). Similarly, as singular

dimensions, the strong racial centrality and private regard indicators associated with the

Nationalist profile have been found to buffer the negative effects of racial discrimination on

mood, anxiety, and substance use disorders (Woo et al., 2019). Previous research has also

indicated that among African American individuals for whom race is not central to their identity,

their mental health outcomes are worse, especially in the context of racial discrimination

(Mekawi et al., 2020; Neblett et al., 2004; Seaton, 2009). This may be because individuals,

especially African American women, with low centrality are found to utilize fewer culturally-

centered coping strategies or fewer effective coping practices in response to racism (Mekawi et

al., 2020; Lewis et al., 2017). While the buffering potential of high nationalism subscale scores

has been considering minimally in the literature, it is possible that prioritizing Afrocentric values

may add to a sense of racial belonging and racial centrality, which has been found to be

protective in some studies (Sellers & Shelton, 2003; Mekawi et al., 2020; Bhar et al., 2008;

Neblett et al., 2004; Seaton, 2009).

Considering the context of risk and resilience, it may be that specific racial identity

profiles, rather than racial identity broadly, should be understood within the framework of a

protective model (Fleming & Ledogar, 2008). The combination of racial identity indictors that

reflects the Nationalist profile operates as the resilience factor that may reduce the effects of

race-related stress (e.g., the risk) on trauma symptoms (e.g., the negative outcome) in the current

study. This resiliency effect did not carry across all profiles, indicating different expressions of

racial identity may or may not function within such a conceptualization. Significantly more

research must be done to substantiate this possibility, but the potential for racial identity to

amplify Black resilience is clearly demonstrated in the current research.

4.6   Future Directions and Limitations

The current study offers novel and captivating insights into the relationship among racial

identity, race-related stress, and trauma symptoms in African American women. While the

findings from this research provide a foundation for understanding how racial identity may

operate within the frame of risk and resiliency for African American women who have

experienced racial and traumatic stressors, the field needs more research in this area to confirm the dynamics of this relationship. The majority of MIBI latent profile research has been conducted with college-aged and high school student samples. The current study is one of very few studies examining racial identity among a trauma-exposed, non-treatment seeking African American population, and calls for additional research with this population as well as broader community samples with greater variability in trauma exposure and neighborhood disadvantage. Furthermore, delving into the nuances of the relationship between racial identity profiles and race-related stress, including the multi-levels components racism experiences (e.g., distress from cultural racism, individual racism, and institutional racism) should be further examined both independently and in relation to traumatic stress. Not only would such research further inform the conceptualization of traumatic and racial stress, but also has the potential to enhance intervention models by incorporating racial identity development in treatment frameworks addressing negative outcomes from trauma and racism.

The current study examined racial identity, race-related stress, and PTSD outcomes with African American women only, providing an illuminating look at this relationship within this important subgroup of the African American community. Researchers should expand upon the current study through continued investigation of this relationship among African American women, as well as examining this dynamic in African American men. It could be that the unique experience of multiple marginalization for African American women may be contributing to the emergence of certain identity profiles as well as the potential for certain profiles to buffer the negative effects of racism discrimination on trauma outcomes. For this reason, comparative research with African American men, as well as other racially minoritized groups is greatly needed.

There are a few limitations associated with the current study. The study was limited to a single urban community (Atlanta, GA), possibly preventing geographical generalizations. Participants are community members seeking care in a public hospital system, which did not allow for data collection with a broader range of participants from the community. Also, this study relied on secondary data analysis and study procedures could not be altered. Furthermore, latent profile analysis would ideally be utilized with a larger sample size than the current study but nonetheless has been successfully applied to produce racial identity profiles with similar sample sizes in other studies (N=157; Bernard et al., 2018).

The cross-sectional nature of this study was also a limitation because it does not allow any causal conclusions to be made about the relationship among racial identity, race-related stress, and trauma symptoms. Future research should examine this relationship utilizing a longitudinal design, which would not only allow for more definite conclusions to be made, but also allow the application of an intergenerational frame when considering the influence of racism on trauma symptoms over the life course and how factors such as racial identity and racial socialization may impact such responses. Application of an intergenerational framework aligns with conceptualizations of distress from racism as a unique result of the historical and intergenerational traumatic contexts that African Americans navigate. Theorists in support of this frame have proposed that the traumatic impact of enslavement persists intergenerationally and results in a set of cognitive, emotional, and behavioral approaches reflective of survival during enslavement (DeGruy, 2017; Akbar, 1996). This theoretical formulation is tied to the concept of cultural trauma, or the collective condition of a people who undergo an excruciating experience that impacts their group identity, values, and worldview (Halloran, 2019), and has been established in the literature as residual effects following enslavement (Akbar, 1996; Wilkins et

al., 2013) and Posttraumatic Slave Syndrome (PTSS; DeGruy, 2017). Theorists have stressed the distinct conceptualized of PTSS from traditional individual-focused PTSD criteria, and have aimed to encapsulate indicators such as poor self-esteem, anger, and racist socialization as notable factors that lead to poor outcomes in family systems, parenting, sexuality, and health (DeGruy, 2017; Halloran, 2019). The theoretical formulation that enslavement as a long-term oppressive experience produced intergenerational traumatic effects is not a novel idea, but has yet to be an established framework for considering the intersection of racism and trauma in African American populations. The current study calls for researchers to conduct longitudinal and intergenerational research through the application of frameworks like PTSS to investigate the relationship between racism and trauma in order to establish the nature of this complex phenomenon and the influence of factors like racial identity development.

5   CONCLUSION

The current study provides an illuminating look into the relationship among racial identity, race-related stress, and trauma symptomatology, particularly in regard to the nature of this relationship within a nontreatment-seeking sample of trauma-exposed African American women. Given the minimal literature, the current study offers valuable evidence of the highly connected experiences of trauma and racial stress, and the powerful potential for multidimensional profiles of racial identity to buffer or exacerbate this relationship. Racial identity profiles have rarely been examined in relation to trauma symptoms and responses, which is a central point of scientific inquiry in the current project. In a population that is deeply overlooked yet essential to consider in the larger question of risk and resilience factors in PTSD and race-related stress, the current study provides evidence of the potent relationship among racism, trauma, and identity and the significant need for additional research in this area.

REFERENCES

Akbar, N. (1996). *Breaking the chains of psychological slavery*. Mind Productions & Associates.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: Author.

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

Arbona, C., & Coleman, N. (2008). Risk and resilience. In S. D. Brown & R. W. Lent (Eds.), *Handbook of counseling psychology* (p. 483–499). John Wiley & Sons, Inc..

Asparouhov, T., & Mut hen, B. (2012). Using Mplus TECH11 and TECH14 to test the number of latent classes. *Mplus web notes*, *14*, 22.

Banks, K. H., & Kohn-Wood, L. P. (2007). The influence of racial identity profiles on the relationship between racial discrimination and depressive symptoms. *Journal of Black Psychology*, *33*(3), 331-354.

Bernard, D. L., Hoggard, L. S., & Neblett Jr, E. W. (2018). Racial discrimination, racial identity, and impostor phenomenon: A profile approach. *Cultural Diversity and Ethnic Minority Psychology*, *24*(1), 51.

Bhar, S., Ghahramanlou-Holloway, M., Brown, K., & Beck, T. (2008). Self-esteem and suicide ideation in psychiatric outpatients. *Suicide and Life-Threatening Behavior, 38*(5), 511–516.

Blevins, C. A., Weathers, F. W., Davis, M. T., Witte, T. K., & Domino, J. L. (2015). The posttraumatic stress disorder checklist for DSM-5 (PCL-5): Development and initial psychometric evaluation. *Journal of Traumatic Stress, 28*(6), 489-498.

Bowleg, L., Huang, J., Brooks, K., Black, A., & Burkholder, G. (2003). Triple jeopardy and

      beyond: Multiple minority stress and resilience among Black lesbians. *Journal of Lesbian*

      Studies, *7*(4), 87-108.

Brooks Holliday, S., Dubowitz, T., Haas, A., Ghosh-Dastidar, B., DeSantis, A., & Troxel, W. M.

      (2018). The association between discrimination and PTSD in African Americans:

      exploring the role of gender. *Ethnicity & Health*, 1-15.

Bryant-Davis, T., & Ocampo, C. (2005). Racist incident–based trauma. *The Counseling*

      Psychologist, *33*(4), 479-500.

Bynum, M. S., Best, C., Barnes, S. L., & Burton, E. T. (2008). Private regard, identity protection

      and perceived racism among African American males. *Journal of African American*

      Studies, *12*(2), 142-155.

Carter, R. T. (2007). Racism and psychological and emotional injury: Recognizing and assessing

      race-based traumatic stress. *The Counseling Psychologist*, *35*(1), 13-105.

Carter, R. T., Forsyth, J., Mazzula, S., & Williams, B. (2005). Racial discrimination and race

      based traumatic stress. In R. T. Carter (Ed.), *Handbook of racial–cultural psychology and*

      counseling: Training and practice (Vol. 2, pp. 447-476). New York: Wiley.

Carter, R. T., Kirkinis, K., & Johnson, V. E. (2020). Relationships between trauma symptoms

      and race-based traumatic stress. *Traumatology, 26*(1), 11–18.

Castle, K., Conner, K., Kaukeinen, K., & Tu, X. (2011). Perceived racism, discrimination, and

      acculturation in suicidal ideation and suicide attempts among black young adults. *Suicide*

      and Life-Threatening Behavior, *41*(3), 342-351.

Celeux, G., & Soromenho, G. (1996). An entropy criterion for assessing the number of clusters

      in a mixture model. *Journal of Classification*, *13*(2), 195-212.

Chou, T., Asnaani, A., & Hofmann, S. G. (2012). Perception of racial discrimination and

    psychopathology across three U.S. ethnic minority groups. *Cultural Diversity & Ethnic*

    Minority Psychology, 18, 74 – 81.

Christophe, N. K., Stein, G. L., Kiang, L., Supple, A. J., & Gonzalez, L. M. (2020). Latent

    profiles of American and ethnic–racial identity in Latinx mothers and adolescents: Links

    to behavioral practices and cultural values. *Journal of Latinx Psychology*, *8*(2), 142.

Clark, R., Anderson, N. B., Clark, V. R., & Williams, D. R. (1999). Racism as a stressor for

    African Americans: A biopsychosocial model. *American Psychologist*, *54*(10), 805.

Clark, T. T., Salas-Wright, C. P., Vaughn, M. G., & Whitfield, K. E. (2015). Everyday

    discrimination and mood and substance use disorders: A latent profile analysis with

    African Americans and Caribbean Blacks. *Addictive Behaviors*, *40*, 119-125.

Cloitre, M., Stolbach, B. C., Herman, J. L., Kolk, B. V. D., Pynoos, R., Wang, J., & Petkova, E.

    (2009). A developmental approach to complex PTSD: Childhood and adult cumulative

    trauma as predictors of symptom complexity. *Journal of Traumatic Stress*, *22*(5), 399-

    408.

Coffey, S. F., Dansky, B. S., Falsetti, S. A., Saladin, M. E., & Brady, K. T. (1998). Screening for

    PTSD in a substance abuse sample: Psychometric properties of a modified version of the

    PTSD symptom scale self-report. *Journal of Traumatic Stress*, *11*(2), 393-399.

Collins, P. H. (2000). *Black feminist thought: Knowledge, consciousness, and the politics of*

    Empowerment. New York: Routledge.

Contractor, A. A., Caldas, S., Fletcher, S., Shea, M. T., & Armour, C. (2018). Empirically

    derived lifespan polytraumatization typologies: A systematic review. *Journal of Clinical*

    Psychology, 74(7), 1137–1159.

Cooper, S. M., Smalls-Glover, C., Metzger, I., & Griffin, C. (2015). African American fathers'
      racial socialization patterns: Associations with racial identity beliefs and discrimination
      experiences. *Family Relations*, *64*(2), 278-290.

Cross, W. E. (1991). *Shades of Black: Diversity in African-American identity*. Philadelphia:
      Temple University Press.

Cross, W. E., Jr., & Vandiver, B. J. (2001). *Nigrescence theory and measurement: Introducing
      the Cross Racial Identity Scale (CRIS).* In J. G. Ponterotto, J. M. Casas, L. A. Suzuki, &
      C. M. Alexander (Eds.), *Handbook of multicultural counseling* (p. 371–393). Sage
      Publications, Inc.

Dale, S. K., & Safren, S. A. (2019). Gendered racial microaggressions predict posttraumatic
      stress disorder symptoms and cognitions among Black women living with
      HIV. *Psychological Trauma: Theory, Research, Practice, and Policy, 11*(7), 685–694

DeGruy, J. D. (2017). *Post-traumatic slave syndrome: America's legacy of enduring injury and
      healing*. Portland, OR: Uptown Press.

Dukes, K. N., & Gaither, S. E. (2017). Black racial stereotypes and victim blaming: Implications
      for media coverage and criminal proceedings in cases of police violence against racial
      and ethnic minorities. *Journal of Social Issues, 73,* 789 – 807

D'Unger, A. V., Land, K. C., McCall, P. L., & Nagin, D. S. (1998). How many latent classes of
      delinquent/criminal careers? Results from mixed Poisson regression analyses. *American
      Journal of Sociology*, *103*(6), 1593-1630.

Fleming, J., & Ledogar, R. J. (2008). Resilience, an Evolving Concept: A Review of Literature
      Relevant to Aboriginal Research. *Pimatisiwin, 6*(2), 7–23.

Foa, E. B., Riggs, D. S., Dancu, C. V., & Rothbaum, B. O. (1993). Reliability and validity of a

    brief instrument for assessing post-traumatic stress disorder. *Journal of Traumatic*

    Stress, *6*(4), 459-473.

Foa, E. B., & Tolin, D. F. (2000). Comparison of the PTSD symptom scale–interview version

    and the clinician-administered PTSD scale. *Journal of Traumatic Stress*, *13*(2), 181-191.

Folkman, S., & Lazarus, R. S. (1984). *Stress, Appraisal, and Coping* (pp. 150-153). New York:

    Springer Publishing Company.

Franklin, A. J., & Boyd-Franklin, N. (2000). Invisibility syndrome: A clinical model of the

    effects of racism on African-American males. *American Journal of Orthopsychiatry, 70,*

    33– 41.

Gillespie, C. F., Bradley, B., Mercer, K., Smith, A. K., Conneely, K., Gapen, M., ... & Ressler,

    K. J. (2009). Trauma exposure and stress-related disorders in inner city primary care

    patients. *General Hospital Psychiatry*, *31*(6), 505-514.

Gillikin, C., Habib, L., Evces, M., Bradley, B., Ressler, K. J., & Sanders, J. (2016). Trauma

    exposure and PTSD symptoms associate with violence in inner city civilians. *Journal of*

    Psychiatric Research, 83, 1-7.

Gómez, J. M. (2019). What's the harm? Internalized prejudice and cultural betrayal trauma in

    ethnic minorities. *American Journal of Orthopsychiatry*, *89*(2), 237.

Halloran, M. J. (2019). African American health and posttraumatic slave syndrome: A terror

    management theory account. *Journal of Black Studies, 50*(1), 45-65.

Harper, B. E., & Tuckman, B. W. (2006). Racial identity beliefs and academic achievement:

    Does being black hold students back? *Social Psychology of Education, 9*(4), 381–403.

Harris-Britt, A., Valrie, C. R., Kurtz-Costes, B., & Rowley, S. J. (2007). Perceived racial discrimination and self-esteem in African American youth: Racial socialization as a protective factor. *Journal of Research on Adolescence*, *17*(4), 669-682.

Helms, J. E. (1996). Toward a methodology for measuring and assessing racial as distinguished from ethnic identity. In G. R. Sodowsky & J. C. Impara (Eds.), *Multicultural assessment in counseling and clinical psychology* (pp. 143–192). Lincoln, NE: Buros Institute of Mental Measurement.

Helms, J. E., Nicolas, G., & Green, C. E. (2012). Racism and ethnoviolence as trauma: Enhancing professional and research training. *Traumatology*, *18*(1), 65-74.

Himle, J. A., Baser, R. E., Taylor, R. J., Campbell, R. D., & Jackson, J. S. (2009). Anxiety disorders among African Americans, blacks of Caribbean descent, and non-Hispanic whites in the United States. *Journal of Anxiety Disorders, 23,* 578 –59.

Holt, M. K., Felix, E., Grimm, R., Nylund-Gibson, K., Green, J. G., Poteat, V. P., &

Zhang, C. (2017). A latent class analysis of past victimization exposures as predictors of college mental health. *Psychology of Violence, 7*(4), 521–532.

Kirkinis, K., Pieterse, A. L., Martin, C., Agiliga, A., & Brownell, A. (2018). Racism, racial discrimination, and trauma: A systematic review of the social science literature. *Ethnicity & Health*, 1-21.

Lannegrand-Willems, L., & Bosma, H. A. (2006). Identity development-in-context: The school as an important context for identity development. *Identity, 6*(1), 85-113.

Levine, D. S., Himle, J. A., Abelson, J. M., Matusko, N., Dhawan, N., & Taylor, R. J. (2014). Discrimination and social anxiety disorder among African-Americans, Caribbean blacks, and non-Hispanic whites. *The Journal of Nervous and Mental Disease*, *202*(3), 224-230.

Martin, P. P., Wout, D., Nguyen, H., Sellers, R. M., & Gonzalez, R. (2005). Investigating the

    psychometric properties of the Multidimensional Inventory of Black Identity in two

    samples: The development of the MIBI- S. Unpublished manuscript.

Masyn, K. E. (2013). 25 latent class analysis and finite mixture modeling. *The Oxford Handbook*

    of Quantitative Methods, 551.

Mekawi, Y., Lewis, C. B., Watson-Singleton, N. N., Jatta, I. F., Ander, L., Lamis, D., ... &

    Kaslow, N. J. (2020). Racial identity profiles among suicidal Black women: A replication

    and extension study. *Journal of Black Studies, 51*(7), 685-704.

Metzger, I. W., Anderson, R. E., Are, F., & Ritchwood, T. (2020). Healing interpersonal and

    racial trauma: integrating racial socialization into trauma-focused cognitive behavioral

    therapy for African American youth. *Child Maltreatment*, 1077559520921457.

Mouzon, D. M., Taylor, R. J., Keith, V. M., Nicklett, E. J., & Chatters, L. M. (2017).

    Discrimination and psychiatric disorders among older African Americans. *International*

    Journal of Geriatric Psychiatry, *32*(2), 175-182.

Murray-García, J. L., Harrell, S., García, J. A., Gizzi, E., & Simms-Mackey, P. (2005). Self-

    reflection in multicultural training: Be careful what you ask for. *Academic Medicine,*

    80(7), 694-701.

Muthén, B., & Asparouhov, T. (2008). Growth mixture modeling: Analysis with non-Gaussian

    random effects. *Longitudinal Data Analysis*, *143165*.

Neblett, E. W., Jr, & Carter, S. E. (2012). The protective role of racial identity and Africentric

    worldview in the association between racial discrimination and blood

    pressure. *Psychosomatic Medicine*, *74*(5), 509–516.

Neblett, E. W., Jr., Shelton, J. N., & Sellers, R. M. (2004). The role of racial identity in
     managing daily racial hassles. In G. Philogène (Ed.), *Decade of behavior: Racial identity*
     in context. The legacy of Kenneth B. Clark (pp. 77–90). American Psychological
     Association.

Nuru-Jeter, A., Dominguez, T. P., Hammond, W. P., Leu, J., Skaff, M., Egerter, S., ... &
     Braveman, P. (2009). "It's the skin you're in": African-American women talk about their
     experiences of racism. An exploratory study to develop measures of racism for birth
     outcome studies. *Maternal and Child Health Journal*, *13*(1), 29.

Nylund, K. L., Asparouhov, T., & Muthén, B. O. (2007). Deciding on the number of classes in
     latent class analysis and growth mixture modeling: A Monte Carlo simulation
     study. *Structural Equation Modeling: A Multidisciplinary Journal*, *14*(4), 535-569.

Nylund-Gibson, K., & Choi, A. Y. (2018). Ten frequently asked questions about latent class
     analysis. *Translational Issues in Psychological Science, 4*(4), 440.

Opara, I., Lardier, D. T., Metzger, I., Herrera, A., Franklin, L., Garcia-Reid, P., & Reid, R. J.
     (2020). "Bullets have no names": A qualitative exploration of community trauma among
     Black and Latinx youth. *Journal of Child and Family Studies, 29*(8), 2117-2129.

Perry, B. L., Harp, K. L., & Oser, C. B. (2013). Racial and gender discrimination in the stress
     process: Implications for African American women's health and well-being. *Sociological*
     Perspectives, *56*(1), 25–48.

Pieterse, A. L., Carter, R. T., Evans, S. A., & Walter, R. A. (2010). An exploratory examination
     of the associations among racial and ethnic discrimination, racial climate, and trauma-
     related symptoms in a college student population. *Journal of Counseling Psychology, 57,*
     255–263.

Polanco-Roman, L., Danies, A., & Anglin, D. M. (2016). Racial discrimination as race-based

      trauma, coping strategies, and dissociative symptoms among emerging

      adults. *Psychological Trauma: Theory, Research, Practice, and Policy*, *8*(5), 609.

Richardson, B. L., Macon, T. A., Mustafaa, F. N., Bogan, E. D., Cole-Lewis, Y., & Chavous, T.

      M. (2015). Associations of racial discrimination and parental discrimination coping

      messages with African American adolescent racial identity. *Journal of Youth and*

      Adolescence, 44(6), 1301–1317.

Ritchey, K. (2014). Black identity development. *The Vermont Connection*, *35*(1), 12.

Roberson, K., & Carter, R. T. (2021). The relationship between race-based traumatic stress and

      the Trauma Symptom Checklist: Does racial trauma differ in symptom

      presentation? *Traumatology*. Advanced online publication.

Roberts, A. L., Gilman, S. E., Breslau, J., Breslau, N., & Koenen, K. C. (2011). Race/ethnic

      differences in exposure to traumatic events, development of post-traumatic stress

      disorder, and treatment-seeking for post-traumatic stress disorder in the United States.

      Psychological Medicine, 41, 71– 83.

Russell, D. W., Clavél, F. D., Cutrona, C. E., Abraham, W. T., & Burzette, R. G. (2018).

      Neighborhood racial discrimination and the development of major depression. *Journal of*

      Abnormal Psychology, *127*(2), 150.

Schwartz, A. C., Bradley, R. L., Sexton, M., Sherry, A., & Ressler, K. J. (2005). Posttraumatic

      stress disorder among African Americans in an inner city mental health clinic.

      Psychiatric Services, 56, 212–215

Schwarz, G. (1978). Estimating the dimension of a model. *The annals of statistics*, *6*(2), 461-

      464.

Scottham, K. M., & Smalls, C. P. (2009). Unpacking racial socialization: Considering female African American primary caregivers' racial identity. *Journal of Marriage and Family*, *71*(4), 807–818.

Scurfield, R. M., & Mackey, D. W. (2001). Racism, trauma and positive aspects of exposure to race-related experiences: Assessment and treatment implications. *Journal of Ethnic and Cultural Diversity in Social Work, 10*, 23-47.

Seaton, E. K. (2009). Perceived racial discrimination and racial identity profiles among African American adolescents. *Cultural Diversity and Ethnic Minority Psychology, 15*(2), 137–144.

Sellers, R. M., Copeland-Linder, N., Martin, P. P., & Lewis, R. L. H. (2006). Racial identity matters: The relationship between racial discrimination and psychological functioning in African American adolescents. *Journal of Research on Adolescence*, *16*(2), 187-216.

Sellers, R. M., Rowley, S. A., Chavous, T. M., Shelton, J. N., & Smith, M. A. (1997). Multidimensional Inventory of Black Identity: A preliminary investigation of reliability and construct validity. *Journal of Personality and Social Psychology*, *73*(4), 805.

Sellers, R. M., & Shelton, J. N. (2003). The role of racial identity in perceived racial discrimination. *Journal of Personality and Social Psychology*, *84*(5), 1079–1092.

Sellers, R. M., Smith, M. A., Shelton, J. N., Rowley, S. A., & Chavous, T. M. (1998). Multidimensional model of racial identity: A reconceptualization of African American racial identity. *Personality and Social Psychology Review*, *2*(1), 18-39.

Sheehan, B. E., Derlega, V. J., Maduro, R. S., & Winstead, B. A. (2019). Prior experiences with racial discrimination predict psychological reactions to a recent incident of race-based

rejection among African American university students. *Journal of Loss and Trauma*, *24*(2), 115-128.

Shelvin, K. H., Rivadeneyra, R., & Zimmerman, C. (2014). Stereotype threat in African American children: The role of Black identity and stereotype awareness. *Revue Internationale de Psychologie Sociale, 27*(3–4), 175–204.

Sibrava, N. J., Bjornsson, A. S., Pérez Benítez, A. C. I., Moitra, E., Weisberg, R. B., & Keller, M. B. (2019). Posttraumatic stress disorder in African American and Latinx adults: Clinical course and the role of racial and ethnic discrimination. *American Psychologist*, *74*(1), 101.

Simmons, C., Worrell, F. C., & Berry, J. M. (2008). Psychometric properties of scores on three Black racial identity scales. *Assessment, 15*(3), 259-276.

Slavin, L. A., Rainer, K. L., McCreary, M. L., & Gowda, K. K. (1991). Toward a multicultural model of the stress process. *Journal of Counseling & Development*, *70*(1), 156-163.

Soto, J. A., Dawson-Andoh, N. A., & BeLue, R. (2011). The relationship between perceived discrimination and generalized anxiety disorder among African Americans, Afro Caribbeans, and non-Hispanic Whites. *Journal of Anxiety Disorders*, *25*(2), 258-265.

Sue, D. W. (2010). *Microaggressions in everyday life: Race, gender, and sexual orientation*. Hoboken, New Jersey: John Wiley & Sons.

Thomas, A., Hammond, W. P., & Kohn-Wood, L. P. (2015). Child, be cool man: African American men, identity, coping, and aggressive ideation. *Cultural Diversity and Ethnic Minority Psychology, 21*(3), 369–379.

Thomas, A. J., Witherspoon, K. M., & Speight, S. L. (2008). Gendered racism, psychological distress, and coping styles of African American women. *Cultural Diversity and Ethnic Minority Psychology*, *14*(4), 307.

Tyrell, F. A., Marcelo, A. K., Trang, D. T., & Yates, T. M. (2019). Prospective associations between trauma, placement disruption, and ethnic-racial identity among newly emancipated foster youth. *Journal of Adolescence*, *76*, 88-98.

Utsey, S. O. (1999). Development and validation of a short form of the Index of Race-Related Stress (IRRS)–Brief Version. *Measurement and Evaluation in Counseling and Development, 32*, 149–167.

Utsey, S. O., Chae, M. H., Brown, C. F., & Kelly, D. (2002). Effect of ethnic group membership on ethnic identity, race-related stress and quality of life. *Cultural Diversity and Ethnic Minority Psychology, 8,* 366–377.

Utsey, S. O., & Hook, J. N. (2007). Heart rate variability as a physiological moderator of the relationship between race-related stress and psychological distress in African Americans. *Cultural Diversity and Ethnic Minority Psychology, 13*, 250.

Vandiver, B. J., Cross, W. E., Jr., Worrell, F. C., & Fhagen-Smith, P. E. (2002). Validating the Cross Racial Identity Scale. *Journal of Counseling Psychology, 49*(1), 71–85.

Vandiver, B. J., Worrell, F. C., & Delgado-Romero, E. A. (2009). A psychometric examination of Multidimensional Inventory of Black Identity (MIBI) scores. *Assessment*, *16*(4), 337-351.

Volpe, V. V., Lee, D. B., Hoggard, L. S., & Rahal, D. (2019). Racial discrimination and acute physiological responses among Black young adults: The role of racial identity. *Journal of Adolescent Health, 64*(2), 179–185.

Walker, R., Francis, D., Brody, G., Simons, R., Cutrona, C., & Gibbons, F. (2017). A

longitudinal study of racial discrimination and risk for death ideation in African

American youth. *Suicide and Life-Threatening Behavior*, *47*(1), 86-102.

Weathers, F. W., Litz, B. T., Keane, T. M., Palmieri, P. A., Marx, B. P., & Schnurr, P. P. (2013).

The PTSD checklist for dsm-5 (pcl-5). *Scale available from the National Center for

PTSD at www.ptsd.va.gov, 10*.

Williams, M. T., Metzger, I. W., Leins, C., & DeLapp, C. (2018). Assessing racial trauma within

a DSM–5 framework: The UConn Racial/Ethnic Stress & Trauma Survey. *Practice

Innovations, 3*(4), 242–260.

Wilkins, E. J., Whiting, J. B., Watson, M. F., Russon, J. M., & Moncrief, A. M. (2013). Residual

effects of slavery: What clinicians need to know. *Contemporary Family Therapy, 35*(1),

14-28.

Williams, D., & Williams-Morris, R. (2000). Racism and mental health: The African American

experience. *Ethnicity & Health*, *5*(3-4), 243-268.

Woo, B., Fan, W., Tran, T. V., & Takeuchi, D. T. (2019). The role of racial/ethnic identity in the

association between racial discrimination and psychiatric disorders: A buffer or

exacerbator?. *SSM-Population Health*, *7*, 100378.

Worrell, F. C., Andretta, J. R., & Woodland, M. H. (2014). Cross Racial Identity Scale (CRIS)

scores and profiles in African American adolescents involved with the juvenile justice

system. *Journal of Counseling Psychology, 61*(4), 570–580.

Worrell, F. C., Vandiver, B. J., Cross Jr, W. E., & Fhagen-Smith, P. E. (2004). Reliability and

structural validity of cross racial identity scale scores in a sample of African American

adults. *Journal of Black Psychology*, *30*(4), 489-505.