THE INFLUENCE OF INTERNALIZED RACISM ON THE RELATIONSHIP BETWEEN RACIAL DISCRIMINATION AND DEPRESSIVE AND ANXIETY SYMPTOM DISTRESS

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ABSTRACT

Effua E. Sosoo: The Influence of Internalized Racism on the Relationship Between Racial Discrimination and Depressive and Anxiety Symptom Distress (Under the direction of Enrique W. Neblett, Jr.)

The current study used three waves of data to longitudinally examine whether internalized racism moderated and/or mediated the association between racial discrimination and depressive and anxiety symptom distress. Participants were 155 Black college students attending a predominantly White institution who completed measures of racial discrimination, internalized racism, and mental health symptom distress. Using hierarchical linear regression and autoregressive cross-lagged models, results indicated that certain dimensions of internalized racism moderated, but did not mediate, the link between racial discrimination and psychological symptom distress. Specifically, there was a positive association between racial discrimination and Wave 3 somatization symptom distress for individuals with low levels of alteration of physical appearance. There was also a positive association between racial discrimination and Wave 2 anxiety for individuals with high levels of internalization of negative stereotypes. Clinical implications for the treatment of Black college students are discussed.

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The Influence of Internalized Racism on the Relationship between Racial Discrimination and Depressive and Anxiety Symptom Distress

Racial discrimination is a normative and pervasive experience for Black youth (García Coll et al., 1996; Gibbons, Gerrard, Cleveland, Wills, & Brody, 2004; Seaton, Caldwell, Sellers, & Jackson, 2008) that is associated with a host of negative outcomes such as mood disorders (Banks, 2010; Jones, Lee, Gaskin, & Neblett, 2013; Paradies et al., 2015), decreased self-esteem and life satisfaction, (Seaton, Caldwell, Sellers, & Jackson, 2010), and cardiovascular diseases (DeLilly & Flaskerud, 2012). As Black youth transition to adulthood and begin to independently navigate contexts such as college, employment, housing, and medical care, they may experience more racial discrimination and be at increased risk for the deleterious consequences of these experiences (Pearlin, Schieman, Fazio, & Meersman, 2005).

Though exposure to discrimination does not inevitably lead to poor mental functioning, certain factors may render Blacks even *more* vulnerable to racial discrimination. *Internalized racism*, the process by which people accept and internalize dominant White culture's actions and beliefs toward Black people, is one such factor (Bailey, Chung, Williams, Singh, & Terrell, 2011). Numerous studies have linked internalized racism to metabolic health (Chambers et al., 2004) but more importantly, it is associated with depressive symptoms and psychological distress (Szymanski & Obiri, 2010; Taylor, Henderson, & Jackson, 1991). One explanation for these relations is that internalized racism may lead to internalized stereotypes which, in turn, lead to sadness, anxious arousal, and decreases in self-esteem.

While an abundance of research has examined the impact of racial discrimination on Blacks, little is known about internalized racism as an intervening variable over time. It is important to understand which factors combine additively and interactively with racial discrimination in order to understand which individuals are most vulnerable to discrimination and, therefore, poor mental health outcomes (Paradies, 2006a). This study will examine whether internalized racism moderates and/or mediates relations between racial discrimination and mental health symptom distress in a population of Black emerging adults. Given the strong association between racial discrimination and depressive and anxiety symptoms relative to other psychiatric symptoms (Pieterse, Todd, Neville, & Carter, 2012) and the overall prevalence of these symptoms in the general population (Ferrari et al., 2013; Kessler, Chiu, Demler, & Walters, 2005), my study will focus on internalized racism in the context of racial discrimination, and depressive and anxiety symptom distress.

Defining Racial Discrimination

Racial discrimination has been defined in a variety of ways (Berman & Paradies, 2010; Paradies, 2006b). For example, it has been defined as a phenomenon that results in unfair inequalities in power that can be expressed through beliefs, emotions, or practices (Priest et al., 2013). These beliefs, emotions, and practices can range from threats to deeply rooted social and structural inequalities. Researchers have suggested that there are several levels of racism that can convey their impacts in diverse ways. Jones (2000) conceptualized racial discrimination as occurring at three distinct levels: internalized (acceptance of negative messages about abilities and worth), personally mediated (intentional and unintentional prejudice and discrimination), and institutionalized (differential access to goods and services). Analogously, Berman and Paradies (2010) conceptualized racial discrimination as internalized (acceptance of negative stereotypes

about one's group); interpersonal (interactions between individuals and groups); and systemic (inequalities embedded in social systems and structures).

Theoretical Framework and Developmental Significance

Two theoretical models may be useful in understanding the links between discrimination, internalized racism, and depressive and anxiety symptom distress. The first is Clark and colleagues' (1999) biopsychosocial model of racism. This model proposes that the perception of an environmental stimulus (e.g., racial discrimination) as racist leads to negative health outcomes that may be moderated by psychological and/or behavioral factors (e.g., internalized racism) and mediated by coping and/or psychological stress responses (e.g., internalized racism). These exaggerated stress responses ultimately influence health outcomes over time. In the context of the current study, repeated exposure to racial discrimination may lead to depressive and anxiety symptom distress in the presence of a psychological and/or behavioral factor such as internalized racism.

Another theoretical framework that may be useful in understanding the link between discrimination, internalized racism, and depressive and anxiety symptom distress is the risk and resilience framework (Rutter, 1987). This framework recognizes that although risk factors are likely to lead to maladaptive outcomes, there are individual variations in response to risk. Specifically, vulnerability and protective processes can intensify or ameliorate, respectively, one's response to risk. In the context of the current study, racial discrimination is a risk factor for depressive and anxiety symptom distress. However, not all Black emerging adults exposed to racial discrimination will experience these outcomes. Internalized racism may be a vulnerability factor that renders individuals even more susceptible to the pernicious effects of racial discrimination.

Though useful theoretical frameworks, Clark et al. (1999) and Rutter (1987) pay little attention to the importance of developmental period. García Coll and colleagues (1996) highlight age as an influential factor on the development of minority youth. Emerging adulthood is a crucial developmental period that lies between adolescence and young adulthood but is theoretically and empirically distinct from both (Arnett, 2000). During this time emerging adults are semiautonomous: they have left the dependency of childhood but have not taken on the responsibilities that accompany adulthood. In addition to managing their new independence, Black emerging adults are vulnerable to increased exposure to racial discrimination as they continue their education (Pearlin et al., 2005). These experiences, sometimes referred to as "minority status" stressors, are unique to minority students and can exacerbate the typical college maladjustment that all students face (Smedley, Myers, & Harrell, 1993). Examples include culturally insensitive instructors, negative stereotypes, and discrimination (Cokley, McClain, Enciso, & Martinez, 2013). Black emerging adults are also vulnerable to increased exposure to racial discrimination as they seek employment. Studies have revealed that discriminatory hiring practices favor White applicants over Black applicants (Pager, 2003). This constellation of racerelated stressors suggests that emerging adulthood can be a taxing transition for Black students.

Racial Discrimination and Mental Health Functioning

Concordant with the theoretical framework proposed by Clark and colleagues (1999) and Rutter (1987), several studies have documented an inverse association between discrimination and favorable mental health (for a review see Priest et al., 2013; Keith, Lincoln, Taylor, & Jackson, 2010; Kwate & Goodman, 2015; Pascoe & Smart Richman, 2009; Williams & Mohammed, 2009). Importantly, several longitudinal examinations have also established a link between discrimination and depression (Borrell, Kiefe, Williams, Diez-Roux, & Gordon-Larsen,

2006; Brody et al., 2006; Schulz et al., 2006). For example, Brown and colleagues (2000) found that greater reports of discrimination predicted higher clinical levels of depression one year later. Furthermore, depression did not predict reports of discrimination, suggesting that experiences of racial discrimination temporally precede depression and not vice-versa. Similarly, in a five-year longitudinal study, Brody and colleagues (2006) found a positive relationship between perceived discrimination and subsequent depressive symptoms.

Research has found that increased discrimination experiences are related not only to depressive, but also to anxiety symptoms (Banks, Kohn-Wood, & Spencer, 2006; Gaylord-Harden & Cunningham, 2009; Hurd, Varner, Caldwell, & Zimmerman, 2014; Lee, Neblett, & Jackson, 2015). Furthermore, racial discrimination may be especially pernicious for Black individuals relative to other racial groups. One study found that while non-race based discrimination predicted Generalized Anxiety Disorder (GAD) for all racial groups, race-based discrimination was associated with significantly higher odds of endorsing GAD for African Americans only (Soto, Dawson-Andoh, & BeLue, 2011). In addition, research indicated that compared to those who experienced infrequent levels of discrimination, those who experienced frequent levels of discrimination were more likely to meet criteria for both major depressive disorder (MDD) and GAD (Clark et al., 2015). In sum, there is abundant evidence in the extant literature supporting the link between racial discrimination and depressive and anxiety symptoms.

Conceptualization of Internalized Racism

Internalized racism, the process by which people accept and internalize dominant White culture's actions and beliefs toward Black people, may be one factor that increases the risk of experiencing depressive and anxiety symptoms in the presence of racial discrimination. In fact,

Speight (2007) contended that an understanding of racism *without* understanding how it is internalized is incomplete. To fully understand the progression of the literature on internalized racism, it is important to recognize that the examination of this concept began prior to the formal use of the term *internalized racism* (Clark & Clark, 1939; Clark, Clark, Newcomb, & Hartley, 1947; Horowitz, 1939). For example, the famous Doll Tests, which aimed to examine racial attitudes and preferences among African-American children, revealed that African-American children demonstrated a strong preference for White dolls over Black dolls (Clark, Clark, Newcomb, & Hartley, 1947). Although replications of the study have demonstrated mixed findings, the instances of self-deprecation revealed by the study, in which children chose the White doll as the one that was the "best to play with" and "nicest color", may have been one of the first empirical studies to encapsulate internalized racism.

Early theoretical examinations using the term "internalized racism" first began to surface in the 1980s, likening internalized racism to the oppression of Blacks in the 1800s: "The slavery that captures the mind and incarcerates the motivation, perception, aspiration, and identity in a web of anti-self images, generating a personal and collective self-destruction, is more cruel than the shackles on the wrists and ankles" (Akbar, 1984). In other words, internalized racism is a form of psychological slavery just as pernicious as physical slavery. Lipsky (1987) further described internalized racism as the way in which Black people "agree" with their own oppression and internalize the distress patterns resulting from the racism and oppression of the majority society. Specifically, Lipsky (1987) posited that internalized racism manifests itself as internalizing stereotypes, mistrusting the self and other Blacks, and narrowing one's view of "authentic" Black culture. This was the first attempt to propose specific dimensions of internalized racism.

Though the use of the term *internalized racism* did not emerge until the 1980s, researchers had been studying Black identity change theories and examining *Black self-hatred*, a negative component of racial identity, for years (Fanon, 1967; Memmi, 1965; Milliones, 1973; Thomas, 1971). One example is Cross' (1991) Nigrescence model, an important foundation for racial/ethnic identity theory that encapsulated psychological changes in the consciousness of Blacks. This model included an Anti-Black dimension as one component of the Pre-Encounter stage, a stage in which one is unaware of their race and its social implications. The Anti-Black dimension depicts a Black individual who holds very negative views about Black people and internalizes these views as Black self-hatred. These views can manifest themselves directly (e.g., "I dislike my Black features") and indirectly (e.g., idealization of White people and White culture). This internalization leads to the questioning of one's self-worth as a Black person and is augmented by repeated exposure to distortions about the African and African American experience in educational settings (e.g., inaccurate historical facts; Vandiver, Fhagen-Smith, Cokley, Cross, & Worrell, 2001). The *Pre-Encounter* stage has been significantly and positively related to self-reported anxiety and global psychological distress among other negative outcomes (Carter, 1991).

More recently, internalized racism has been examined independently of other aspects of Black racial identity, but is still conceptualized as a negative *component* of Black racial identity (Bailey et al., 2011). Similar to Lipsky (1987), Bailey et al. (2011) delineated several dimensions of internalized racism. The first dimension, *belief in the biased representation of history*, denotes the acceptance of fabricated historical facts that are positively skewed toward the White majority. The second dimension, *alteration of physical appearance*, denotes the desire to alter one's physical appearance to conform to a Eurocentric aesthetic. The third dimension,

internalization of negative stereotypes, denotes the acceptance of negative stereotypes about Black people. The fourth dimension, *hair change*, denotes one's preference for straight hair over natural (i.e., kinky or curly) hair.

Jones (2000) presents a theoretical framework that can be used to conceptualize these dimensions. This framework identifies internalized racism as one of three levels of racism and defines it as the "acceptance by members of the stigmatized races of negative messages about their own abilities and intrinsic worth." Internalized racism may include accepting limitations to one's humanity, an embracing of "whiteness," and self-devaluation (Jones, 2000). Importantly, this framework recognizes that there are various forms of racial discrimination and while internalized racism is distinct from institutionalized and personally mediated racism, it can operate in conjunction with these other levels to exacerbate differences in health outcomes.

The Role of Internalized Racism as a Vulnerability Factor

Several studies have established a link between internalized racism and maladaptive outcomes. For example, higher internalized racism has been associated with increased metabolic health risk (i.e., greater risk for heart disease, stroke, and diabetes) among Black youth (Chambers et al., 2004). Internalized racism has also been associated with increased alcohol consumption (e.g., Taylor & Jackson, 1990) as well as poor physical health outcomes such as metabolic risk, waist circumference, diastolic blood pressure, fasting glucose, and cardiovascular disease (e.g., Chae, Lincoln, Adler, & Syme, 2010; Tull, Cort, Gwebu, & Gwebu, 2007; Tull et al., 1999). Although fewer in number, studies that have examined the link between internalized racism and mental health outcomes are consistent with those examining physical health.

Specifically, internalized racism has been associated with depressive symptoms (Taylor et al., 1991), psychological distress (Szymanski & Obiri, 2010), higher perceived stress and

maladaptive coping styles (Tull, Sheu, Butler, & Cornelious, 2005), and decreased self-esteem (Szymanski & Gupta, 2009) among adults.

How might internalized racism moderate the link between racial discrimination and depressive and anxiety symptom distress? One could imagine that a Black student who harbors high levels of negative beliefs about their group and experiences an act of racial discrimination is more likely to experience maladaptive outcomes, and consequently feel sad and worried, as compared to another student who experiences racial discrimination but has lower levels of negative beliefs. Thus, individuals high in internalized racism may be more vulnerable to the adverse effects of racial discrimination, as manifested by depressive and anxiety symptom distress, than those who are low in internalized racism.

Molina and James (2016) examined the moderating (and mediating) role of internalized racism, but found that it did not moderate the link between racial discrimination and past year MDD. However, it is important to highlight that this study used depression diagnoses rather than symptoms as an outcome. Though not focused on racial discrimination, longitudinal examinations of the self-perceptions of stigmatized groups supports this rationale. For example, older individuals with less positive self-perceptions had shorter life spans and were more likely to experience a cardiovascular event than those with more positive perceptions, suggesting that self-stereotyping can influence longevity and health (Levy, Slade, Kunkel, & Kasl, 2002; Levy, Zonderman, Slade, & Ferrucci, 2009). Thus, internalized racism is an important construct to examine as high levels of self-stereotyping may be magnified by the experience of racial discrimination.

Internalized Racism as a Mediator of the link between Racial Discrimination and Depressive and Anxiety Symptom Distress

Mediation is another possible mechanism through which internalized racism may play a role in the association between racial discrimination and depressive and anxiety symptom distress. It is possible that racial discrimination may trigger internalized racism, ultimately leading to depressive and anxiety symptom distress. Thus, racial discrimination may predict depressive and anxiety symptom distress because it is associated with increased internalized racism. One could imagine that a Black student who repeatedly experiences racial discrimination in various contexts might begin to accept (i.e., internalize) the negative messages communicated as true. This acceptance may then lead to self-deprecating thoughts as the student may falsely assume that their individual characteristics, rather than the prejudice of the person or institution responsible for the racial discrimination, are the *cause* of the negative treatment. These thoughts, in turn, may lead to depressive and anxiety symptom distress.

To date, two studies have examined internalized racism as a mediator of the association between racial discrimination and mental health outcomes (Graham, West, Martinez, & Roemer, 2016; Molina & James, 2016) but produced conflicting results. Specifically, Graham and colleagues (2016) found that internalized racism mediated the link between the past-year frequency of racist events and anxious arousal in a Black American sample, concluding that internalized racism may be a target for clinicians to reduce the anxiety elicited by racial experiences. In contrast, Molina and James (2016) found that internalized racism neither mediated (nor moderated) the link between discrimination and past-year MDD. These discrepant findings may be due to the cross-sectional nature of these studies, rendering it impossible to tell whether discrimination leads to depressive and anxiety symptoms or vice versa. Furthermore, Molina and James (2016) utilized poor instrumentation, as the validity of the internalized racism

measure is unclear. Also, MDD diagnosis rather than symptomatology was examined as an outcome. This may conceal important relationships between racial discrimination, internalized racism, and mental health outcomes given that Blacks consistently report lower rates of any mood disorder but have higher levels of persistence and severity (Breslau, Kendler, Su, Gaxiola-Aguilar, & Kessler, 2005).

Limitations of Existing Literature

There are several gaps in the literature that necessitate the current study. First, it is important to understand how racial discrimination and internalized racism combine to adversely affect health status over time as it is unlikely that these racial stressors operate in isolation (Smedley, 2012; Williams & Mohammed, 2009). The few studies that have examined the interplay between racial discrimination and internalized racism associations have produced conflicting results (Graham et al., 2016; Molina & James, 2016). Therefore, the current study seeks to use a longitudinal design to establish temporal precedence.

Second, studies examining internalized racism have primarily focused on physical health outcomes but have neglected the examination of mental health. The few studies that have examined the link between internalized racism and mental health outcomes are consistent with those examining physical health. However, most of these studies have focused on global and emotional measures of functioning (e.g., self-esteem and psychological distress), and only one has focused on a particular psychological disorder (e.g., depressive symptoms; Taylor et al., 1991). Thus, researchers have called for a greater understanding of the relationship between internalized racism and its mental health consequences (Paradies, 2006a; Speight, 2007; Williams & Mohammed, 2009). Therefore, the current study seeks to examine internalized

racism as a moderator and/or mediator of the link between racial discrimination and depressive and anxiety symptom distress.

The Current Study

In an effort to address the aforementioned limitations, the current study has three aims. The first aim is to longitudinally examine the effects of racial discrimination on depressive and anxiety symptom distress. The second aim is to explore the moderating role of internalized racism in the link between racial discrimination and depressive and anxiety symptom distress. The third aim is to explore the mediating role of internalized racism in the link between racial discrimination and depressive and anxiety symptom distress. As an exploratory aim, I will also examine these associations with somatic symptom distress given research evidence that race-related stressors are associated with somatic symptoms among adolescent and adult minority populations (Alamilla, Kim, & Lam, 2010; Huynh, 2012; Huynh & Fuligni, 2010). Somatic symptoms are strongly correlated with PTSD and among Black Americans, negative psychological responses to racism may be similar to features associated with trauma (Pieterse et al., 2012). I will address the following questions:

- 1. Does racial discrimination lead to depressive and anxiety symptom distress over time?
- 2. Does internalized racism moderate the association between racial discrimination and depressive and anxiety symptom distress over time?
- 3. Does internalized racism mediate the association between racial discrimination and depressive and anxiety symptom distress over time?

Regarding the first question, I hypothesize that depressive and anxiety symptom distress will each be positively associated with racial discrimination. This hypothesis is consistent with

previous research linking racial discrimination to poor general mental health functioning and greater depression and anxiety (for a review see Paradies, 2006).

With regard to the second question, I hypothesize that internalized racism will moderate the link between racial discrimination and depressive and anxiety symptom distress. I also predict that there will be a stronger link between racial discrimination and depressive and anxiety symptom distress for certain dimensions of internalized racism, specifically *alteration of physical appearance* and *hair change*. While the other dimensions represent a rejection of cultural values, these seem distinct in that they represent a rejection of one's *appearance*. Given that physical appearance is arguably the most salient aspect of who we are (Lennon & Miller, 1984), I predict that higher levels of acceptance of White ideals of beauty will be more distressing for Black individuals.

For my third question, I hypothesize that internalized racism will mediate the link between racial discrimination and depressive and anxiety symptom distress. This hypothesis is consistent with Graham et al.'s (2016) finding that internalized racism mediated the link between the past-year frequency of racist events and anxious arousal.

Method

Data were collected as part of a longitudinal research project on African American health and life experiences (HeELS). Data collection was conducted in three waves with approximately eight months between each wave.

Participants

Participants were 155 Black first-year students attending a public predominantly White university in the southeastern United States. To be eligible for the study, participants were required to be a college student at the university where the study was conducted, be at least 18

years of age, and self-identify as Black. The sample consisted of two cohorts of students assessed over three time points: Cohort 1 (N = 82, 52.9%) with an average age of 18.52 years (SD = 0.53; range = 18-20), and Cohort 2 (N = 73, 47.1%) with an average age of 18.07 years (SD = 0.25; range = 18-19). Cohort 1 consisted of 55 females (67.1%) and 27 males (32.9%), and Cohort 2 consisted of 50 females (68.5%) and 23 males (31.5%). Sample attrition was 31.3% (11.6 % between Waves 1 and 2, 19.7 % between Waves 2 and 3) across all waves. Students who participated in all three waves did not differ in age, maternal educational attainment, racial discrimination experiences, internalized racism, or mental health symptom distress from those who dropped out after Wave 1. However, participants who dropped out after Wave 1 were more likely to be female than those who completed Wave 1 and Wave 3.

The median highest maternal educational attainment was 'Bachelors or 4-year college degree' and self-reported family socioeconomic status (SES) included: 7% poor, 19.3% working class, 50.9% middle class, 22.2% Upper Middle, and 0.6% Wealthy. 80.7% of students were instate, 91.8% were born in the United States, 28.7% were first generation college students, and 69.6% described their family structure as "two parents." Self-reported cumulative grade point average was 2.81 (SD = 0.51). Family SES, first generation student status, and family structure were similar between cohorts.

Procedures

Participants were recruited via a list of self-identified first-year Black students provided by the university registrar following Institutional Review Board approval. Students were emailed and invited to participate in a longitudinal study examining the impact of stressful life experiences on the physical and mental health of Black college students. Participants completed a battery of online and paper and pencil questionnaires including the measures in the current

study during individual and group survey administrations lasting approximately one hour.

Participants completed the same battery of questionnaires during the second and third waves of data collection. Participants received a payment of \$15 at each wave of data collection.

Measures (See Appendix)

Racial Discrimination: The Daily Life Experiences Scale (DLE; Harrell, 1994). The DLE is a subscale of Harrell's (1994) Racism and Life Experience (RLE) scale. The RLE is used to assess past experiences with racial discrimination. The DLE subscale (Wave 1 α = .92; Wave 2 α = .93; Wave 3 α = .94) is a self-report measure used to assess the frequency of 18 racial microaggressions. Responses on the DLE are rated from 0 = never to 5 = once a week or more, with higher scores corresponding to more frequent experiences of racial discrimination. Previous studies have illustrated the DLE to possess reliable and valid psychometric properties with Black adolescents and young adults (e.g., Neblett Jr & Carter, 2012; Seaton, Neblett, Upton, Hammond, & Sellers, 2011).

Internalized Racism: The Internalized Racial Oppression Scale (IROS; Bailey et al., 2011). The IROS is a 28-item measure used to assess several dimensions of internalized racial oppression. Responses on the IROS are rated from 1 = strongly disagree to 5 = strongly agree, with responses assessing the four dimensions of internalized racism: internalization of negative stereotypes, belief in the biased representation of history, alteration of physical appearance, and hair change. The internalization of negative stereotypes subscale (Wave $1 \alpha = .86$; Wave $2 \alpha = .85$; Wave $3 \alpha = .82$) consists of seven items measuring the extent to which participants accept of negative stereotypes about Black people (e.g., "Most Black People are on welfare"). The belief in the biased representation of history (Wave $1 \alpha = .61$; Wave $2 \alpha = .66$; Wave $3 \alpha = .69$) subscale consists of seven items measuring the extent to which participants accept fabricated historical

facts (e.g., "Cannibalism was widely practiced in Africa"). The *alteration of physical* appearance subscale (Wave 1 α = .83; Wave 2 α = .82; Wave 3 α = .83) consists of nine items measuring the extent to which participants desire to alter their physical appearance to conform to a Eurocentric appearance (e.g., "It is fine to use skin care products to lighten skin color"). The *hair change* subscale (Wave 1 α = .67; Wave 2 α = .69; Wave 3 α = .67) consists of five items measuring the extent to which participants prefer straight (i.e., chemically processed) hair to natural hair (e.g., "Straight hair is better than my natural hair texture"). The *internalized racism composite score* (Wave 1 α = .80; Wave 2 α = .75; Wave 3 α = .81), which was used in explanatory analyses, consists of the 28 combined items from each subscale. Reliability estimates in previous studies have ranged from .68 to .90 for the total IROS and its subscales (Bailey et al., 2011; Brown & Segrist, 2015).

Mental Health Functioning: The Symptom Checklist 90-Revised (SCL-90-R; Derogatis, 1996). The SCL-90-R is a 90-item self-report measure used to assess psychological symptom distress (Schmitz, Hartkamp, & Franke, 2000). Participants were asked to indicate how much each item had distressed or bothered them during the past seven days ($0 = not \ at \ all \ to \ 4 = extremely$). The SCL-90-R is comprised of 9 subscales (i.e., Somatization, Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism). Given the plethora of previous research linking racial discrimination and mental health, the current study focused on *depression* (e.g., crying easily, feeling lonely, feeling low in energy; Wave 1 $\alpha = .88$; Wave 2 $\alpha = .87$; Wave 3 $\alpha = .87$) and *anxiety* (e.g., trembling, feeling fearful, restlessness; Wave 1 $\alpha = .79$; Wave 2 $\alpha = .69$; Wave 3 $\alpha = .79$) subscales. Higher scores reflect increased levels of psychiatric conditions. This study also utilized the Global Severity Index, which is the mean of all the items. It reflects both the number

of symptoms and the intensity of perceived distress (Derogatis & Unger, 2010). This measure has demonstrated good reliability and validity (Horowitz, Rosenberg, Baer, Ureño, & Villaseñor, 1988; Peveler & Fairburn, 1990).

Results

Descriptive Statistics and Preliminary Analyses

Preliminary analyses examined the means and standard deviations of racial discrimination experienced and internalized racism beliefs (Table 1). Participants reported experiencing 18 racial discrimination experiences an average of "once" to "a few times" in the past year at Wave 1 (M = 1.33; SD = 1.00). For the Wave 1 internalized racism composite score, participants reported an average of moderate levels of internalized racism (M = 2.17; SD = .51). In terms of each subscale, participants reported low levels of internalization of negative stereotypes (M = 1.87; SD = .76), moderate levels of belief in the biased representation of history at Wave 1 (M = 2.40; SD = .57), moderate levels of belief in alteration of physical appearance (M = 1.95; SD = .72), and moderate levels of belief in hair change (M = 2.67; SD = .81).

Next, significant bivariate correlations among racial discrimination (Wave 1) and internalized racism variables (Waves 1 and 2) and mental health outcomes (Wave 3) were examined. Racial discrimination was positively associated with Wave 3 depressive (r = .26; p = .007), anxiety (r = .47; p < .001), and somatic ((r = .39; p < .001) symptom distress. Racial discrimination was negatively associated with Wave 1 hair change (r = -.16; p = .049).

In terms of the associations between internalized racism and mental health outcomes, the Wave 2 internalized racism composite score was positively associated with Wave 3 somatic symptom distress (r = .20; p = .046). Wave 2 internalization of negative stereotypes was positively associated with Wave 3 anxiety (r = .20; p = .042) and somatic symptom distress (r = .042) and symptom distress

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.21; p = .039). Wave 2 alteration of physical appearance was positively associated with Wave 3 anxiety symptom distress (r = .29; p = .004).

Associations among Racial Discrimination, Internalized Racism, and Mental Health Symptom Distress

SPSS was used to examine internalized racism as a moderator of the racial discrimination — mental health functioning link. Analyses included the predictor variables (racial discrimination frequency [Wave 1], internalized racism composite score [Wave 1], and the internalized racism subscales [Wave 1]: internalization of negative stereotypes, belief in the biased representation of history, alteration of physical appearance, and hair change, two-way interactions between the predictors, and the dependent variables (depressive, anxiety, and somatic symptom distress [Wave 3]). Cohort, age, gender, maternal educational attainment, Wave 1 mental health symptom distress, and Wave 1 global psychological distress were included as covariates on the first level. Although participants reported SES, literature suggests that parent educational attainment may be a more accurate proxy of SES (Almeida, Neupert, Banks, & Serido, 2005; Grzywacz, Almeida, Neupert, & Ettner, 2004). Therefore, the current study used mother's educational attainment.

Preacher and colleagues' interaction calculator was used to probe the interactions between racial discrimination and internalized racism and to test the simple slopes of the regression lines for the high (+1 SD) and low (-1 SD) values of the moderator (Preacher, Curran, & Bauer, 2006). Continuous predictor variables were centered to reduce multicollinearity between the main effects and interactions. Racial discrimination [Wave 1] and all internalized racism subscales [Wave 1] were entered as main effects (second level) in each model. All subscales were entered simultaneously. Interactions terms between racial discrimination and

each internalized racism subscale were entered simultaneously (third level) in order to control for the effects of each subscale and to reduce the number of analyses conducted in an effort to avoid Type I errors.

Racial discrimination as a risk factor for mental health outcomes

Analyses revealed that participants who experienced greater instances of racial discrimination at Wave 1 (β = .11, p = .004) reported increases in anxiety symptom distress at Wave 3 relative to baseline levels of anxiety symptom distress at Wave 1. However, racial discrimination at Wave 1 did not significantly predict depressive symptom distress at Wave 3 (β = .02, p = .78). Similarly, racial discrimination at Wave 1 did not significantly predict somatic symptom distress at Wave 3 (β = .05, p = .16).

Internalized racism as a moderator

Analyses revealed a significant interaction between racial discrimination and alteration of physical appearance in predicting somatic symptom distress at Wave 3 (β = -.11, p = .005, ΔR^2 = .031) after controlling for demographic variables and Wave 1 somatic symptom distress. The slope of the line one standard deviation below the mean for alteration of physical appearance (β = .16, t(86) = 3.03, p < .001) was significant, whereas the slope of the line at the mean (β = .05, t(86) = 1.48, p = .14), and the slope above the mean (β = -.06, t(86) = -1.18, p = .24), were not significant. As shown by Figure 1, racial discrimination scores positively predicted Wave 3 somatic symptom distress at low, but not medium or high, levels of alteration of physical appearance. This finding suggests that low levels of alteration of physical appearance increase vulnerability to somatic symptom distress in the context of racial discrimination. There was no significant interaction between racial discrimination and internalization of negative stereotypes,

belief in the biased representation of history, or hair change (ps > .05) in predicting depressive or anxiety symptom distress at Wave 3.

Although analyses initially focused on Wave 3 symptom distress, exploratory analyses revealed a significant interaction between racial discrimination and internalization of negative stereotypes in predicting anxiety symptom distress at Wave 2 (β = .12, p = .002, ΔR^2 = .030) after controlling for demographic variables and Wave 1 anxiety symptom distress. The slope of the line one standard deviation above the mean for internalization of negative stereotypes (β = .16, t(111) = 2.68, p = .008) was significant, whereas the slopes of the lines at the mean (β = .04, t(111) = 1.10, p = .27), and one standard deviation below the mean (β = -.08, t(111) = -1.17, p = .25), were not significant. As shown by Figure 2, racial discrimination scores positively predicted Wave 2 anxiety symptom distress at high, but not low or medium levels of internalization of negative stereotypes. This finding suggests that high levels of internalization of negative stereotypes increase vulnerability to anxiety symptom distress in the context of racial discrimination. There was no significant interaction between racial discrimination and belief in the biased representation of history, alteration of physical appearance, or hair change (ps > .05) in predicting depressive or somatic symptom distress at Wave 2.

Internalized racism as a mediator

Auto-regressive cross-lagged models through MPlus v.7.2 were used to test the longitudinal model of internalized racism as a mediator of the link between racial discrimination and mental health symptom distress. One advantage of using this model is that accounts for prior measures of internalized racism. Additionally, it allows one to test the alternative possibility that depressive and anxiety symptom distress may lead to internalized racism and, subsequently, higher levels of perceived racism over time. This is an improvement over standard regression

analyses, which would require additional steps, as these analyses were done in one model. Furthermore, this approach also indicates how well the model fits the data. Model fit indices examined were the Root Mean Square Error of Approximation (RMSEA; Steiger & Lind, 1980), Comparative Fit Index (CFI; Bentler, 1990), and Tucker-Lewis Index (TLI; Tucker & Lewis, 1973).

Each auto-regressive cross-lagged model took the correlations between variables into account. The depressive, anxiety, and somatic symptom distress models for internalization of negative stereotypes, RMSEA = 0.07-.08, CFI = 0.94-0.96, TLI = 0.86-0.91, belief in the biased representation of history, RMSEA = .08-.09, CFI = .92-.94, TLI = .82-.87, alteration of physical appearance, RMSEA = .07-.09, CFI = .94-.96, TLI = .87-.91, and hair change, RMSEA = .01-.08, CFI = .95-1.00, TLI = .89-1.00, demonstrated modest fit to the data. Additionally, the fit of an exploratory model operationalizing internalized racism as a composite score (i.e., all items) was also modest, RMSEA = .08-.09, CFI = .94-0.95, TLI = .87-.90. The models did not support the hypothesis that internalized racism partially or fully mediates the link between racial discrimination and depression, anxiety, or somatic symptom distress. However, several regression paths were significant. First, Wave 1 anxiety symptom distress was positively associated with Wave 2 alteration of physical appearance ($\beta = .15$, p = .02), suggesting that greater levels of anxiety symptom distress were associated with increased desire to alter one's physical appearance. Second, Wave 2 alteration of physical appearance was positively associated with anxiety symptom distress at Wave 3 ($\beta = .18$, p = .03), suggesting that greater desires to alter one's physical appearance were associated with increased levels of anxiety symptom distress.

Discussion

This study examined the associations among racial discrimination, internalized racism, and mental health symptom distress in a sample of Black college students attending a predominantly White university. The first aim of this study was to longitudinally examine the effects of racial discrimination on depressive and anxiety symptom distress. The second aim was to explore the moderating role of internalized racism in the link between racial discrimination and depressive and anxiety symptom distress. The third aim was to explore the mediating role of internalized racism in the link between racial discrimination and depressive and anxiety symptom distress. As an exploratory aim, this study examined the aforementioned relationships with somatic symptom distress as an outcome.

Several key findings emerged. First, racial discrimination experiences at Wave 1 significantly predicted anxiety symptom distress at Wave 3. Second, greater experiences of racial discrimination at Wave 1 were associated with higher levels of somatic symptom distress at Wave 3 for individuals who endorsed low levels of alteration of physical appearance. Third, greater experiences of racial discrimination at Wave 1 were associated with higher levels of anxiety symptom distress at Wave 2 for individuals who endorsed high levels of internalization of negative stereotypes. Fourth, internalized racism experiences at Wave 2 did not mediate the link between racial discrimination experiences at Wave 1 and depressive, anxiety, or somatic symptom distress at Wave 3. These findings extend the prior internalized racism literature by examining how racial discrimination and internalized racism combine to adversely affect mental health outcomes over time using a longitudinal design to establish temporal precedence.

Racial Discrimination as a Risk Factor for Mental Health Outcomes

Consistent with hypotheses, racial discrimination was a significant predictor of anxiety symptom distress over time. This finding is consistent with previous research that has found associations between racial discrimination and anxiety symptoms (Banks et al., 2006; Gaylord-Harden & Cunningham, 2009; Lee et al., 2015). In the context of the current study, it may be that emerging adulthood is a sensitive period due to experiences of heightened stress while navigating a variety of life transitions such as beginning college and living independently for the first time (Hurd et al., 2014). Thus, experiences of racial discrimination may further exhaust an individual's coping resources and influence the onset of psychopathology (Harrell, 2000).

Interestingly, racial discrimination was not a significant predictor of depressive or somatic symptom distress over time. This finding is inconsistent with previous research findings suggesting that racial discrimination predicted depressive symptoms over time (Brody et al., 2006; Brown et al., 2000). It is also contrary to work suggesting that race-related stress is associated with somatic symptoms (Alamilla et al., 2010; Huynh, 2012; Huynh & Fuligni, 2010). One explanation for these findings is the possible overlap in symptomatology. Previous research suggests that there is a strong association among depressive, anxiety, and somatic symptoms (Haug, Mykletun, & Dahl, 2004). This may be because certain somatic symptoms tap into aspects of anxiety. For example, symptoms such as "trouble getting your breath", "a lump in your throat", and "headaches" can easily be interpreted as symptoms of anxiety. Furthermore, individuals with somatic symptoms will often worry about the cause and nature of their physical complaints, ultimately experiencing anxiety.

Internalized Racism as a Vulnerability Factor

Though an exploratory aim, a significant interaction was found between racial discrimination and alteration of physical appearance such that there was a positive association between racial discrimination and somatic symptom distress at Wave 3 for individuals with low, but not medium or high, levels of alteration of physical appearance. This finding suggests that individuals who endorse lower levels of cognitions such as "I wish my nose was narrower" and "it is fine to use skin care products to lighten skin color" are more vulnerable to the pernicious effects of discrimination. Specifically, they were more likely to report distress from physical symptoms such as pain, nausea, and soreness. While this is the first study to find that internalized racism moderated the link between racial discrimination and mental health outcomes, this particular finding is contrary to study hypotheses. Additionally, it is inconsistent with previous findings that higher levels of internalized racism are associated with psychological distress (Szymanski & Obiri, 2010).

Why might this be? One possibility is that those with low levels of alteration of physical appearance hold race as more central to their self-concept than those with medium or high levels. Given that physical appearance is arguably the most salient aspect of who we are (Lennon & Miller, 1984) and that the media exalts Eurocentric standards of beauty, individuals who manage to reject these messages may have high levels of racial identity. Though an abundance of research has highlighted the *protective* role of racial identity (i.e., Neblett Jr & Carter, 2012), some work suggests that certain dimensions of racial identity, such as racial centrality (the extent to which race is a central part of one's self-definition), may serve as a *risk* factor. Indeed, one study found that individuals with higher levels of racial centrality experienced higher levels of racial discrimination (Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003). It may be that

individuals with high levels of centrality may be more aware of race-related cues in ambiguous situations. Although racial identity was not one of the key study variables in the current study, correlations revealed that racial centrality was significantly and negatively associated with alteration of physical appearance, suggesting that individuals with lower levels of alteration of physical appearance had higher levels of racial centrality (r = -.29, p < .001). Furthermore, alteration of physical appearance was also negatively associated with other dimensions of racial identity, such as nationalist ideology (the belief that the Black experience is different from that of other groups; r = -.24, p = .001) and private regard (the extent to which an individual feels positively or negatively about their race; r = -.60, p < .001). In sum, low levels of alteration of physical appearance may be indicative of high levels of racial identity, which may render individuals more vigilant to experiences of racial discrimination. This is consistent with earlier theoretical conceptualizations of internalized racism as a facet of racial identity (Cross, 1991).

A significant interaction was also found between racial discrimination and internalization of negative stereotypes such that there was a positive association between racial discrimination and anxiety symptom distress at Wave 2 for individuals with high, but not low or medium, levels of internalization of negative stereotypes. This finding suggests that individuals who endorse higher levels of cognitions such as "black women are confrontational" and "money management is something that Black people cannot do" are more vulnerable to the pernicious effects of discrimination. Specifically, they are more likely to report experiences of anxiety symptom distress, such as distress from feeling tense or fearful.

What are potential explanations for this interaction? First, it may be that individuals with high levels of internalization of negative stereotypes have strongly accepted negative stereotypes about Black people. Given these beliefs about their own race, they may hold extremely negative

views towards themselves and have lower levels of self-esteem. Consequently, experiences of racial discrimination may serve as a confirmation of these negative views, leading to psychological distress (i.e., anxiety symptoms). Individuals who have internalized these beliefs may not actively challenge the messages conveyed through experiences of racial discrimination. Additionally, these individuals may be less likely to discuss experiences of racial discrimination with same-race peers in an effort to receive social support and validation. Second, similar to the aforementioned findings on alteration of physical appearance, individuals with high levels of internalization of negative stereotypes may not have a strong racial identity. Indeed, correlations support this possibility in that internalization of negative stereotypes was negatively associated with private regard (r = -.43, p < .001).

Analyses did not reveal any significant interactions between racial discrimination and biased representation of history, hair change, or internalized racism composite score. There are several explanations for this. This may be because alteration of physical appearance and internalization of negative stereotypes may be the most pernicious aspects of internalized racism. Additionally, the composite score may obscure the conceptual and statistical granularity of internalized racism. However, further research is necessary to substantiate these possibilities given there have been few published examinations of the internalized racism subscales and the composite score since their validation (c.f., Brown, Rosnick, & Segrist, 2016; Brown & Segrist, 2015).

Similarly, analyses did not reveal any significant interactions between racial discrimination and internalized racism with depressive symptom distress as the dependent variable. This may be because studies seldom examine depressive and somatic symptoms concurrently, which may simultaneously obscure somatic symptoms and emphasize depressive

symptoms as important mental health outcomes. Indeed, studies on racial discrimination and internalized racism often focus on depression and anxiety as mental health outcomes. While this is understandable given the base rates of depression and anxiety in society (Ferrari et al., 2013; Kessler et al., 2005), it is important to examine other types of symptomatology using exploratory analyses even if there is not a strong empirical rationale to do so. Western psychiatry and clinical psychology have historically tended to de-emphasize somatoform disorders while cross-cultural psychologists have been proponents of the retention of these disorders given the emphasis on mind-body holism among diverse populations (So, 2008).

Internalized Racism as a Mediator

Contrary to hypotheses and previous research, internalized racism did not significantly mediate the link between racial discrimination and mental health symptom distress. However, it is important to note that previous studies that did find mediation produced conflicting results. Graham et al. (2016) found that internalized racism mediated the link between the past-year frequency of racist events and anxious arousal, while Molina and James (2016) did not find evidence of mediation in the link between discrimination and past-year MDD. There are several explanations for these findings. First, both of the aforementioned studies were cross-sectional, suggesting that the significant findings (or lack thereof) should be interpreted with caution given their inability to establish temporal precedence. Second, there may be other variables for which the present analyses did not control that may be correlated with internalized racism, masking its role. For example, future work might consider simultaneously examining racial identity and internalized racism. Third, although there was no evidence for mediation, there was a positive and significant association between anxiety symptom distress at Wave 1 and alteration of physical appearance at Wave 2, and also between alteration of physical appearance at Wave 2

and anxiety symptom distress at Wave 3. This suggests a potentially cyclical relationship between alteration of physical appearance and anxiety symptom distress such that they mutually exacerbate one another regardless of experiences of discrimination. However, as previously mentioned, future studies examining the internalized racism subscales are necessary to substantiate this possibility.

Clinical Implications

The findings of the present study have several implications for the treatment of Black college students. Specifically, these findings suggest that it is not only important to examine an individual's racial discrimination experiences, but also the extent to which they have internalized these messages and believe them to be true. This information is important as the clinician crafts a case conceptualization given that negative thoughts about one's self or racial group (internalized racism) are types of maladaptive cognitions. However, one could argue that these maladaptive cognitions are more pernicious than those typically experienced by clients in that negative stereotypes about Black individuals are constantly perpetuated by the media and hate groups. These negative core beliefs may lead to psychopathology and hinder progress during treatment. Thus, clinicians should be willing to acquire this information from clients.

There are several approaches clinicians could use to obtain this information. First, clinicians could administer a measure such as the Internalized Racial Oppression Scale (IROS; Bailey et al., 2011) during sessions, or as homework if the client is uncomfortable with this topic. Second, clinicians could verbally discuss these cognitions in a similar fashion as traditional cognitive behavioral therapy and help the client to generate evidence for and against their beliefs. If the client exhibits great difficulty challenging these beliefs, the clinician could guide the client in recalling examples of their own success or that of Black scientists, celebrities, and athletes. If

the client is in a predominantly White environment, the clinician might also help the client to seek out local cultural events or social groups that may help actively challenge negative cognitions. Previous research has found that cultural socialization is associated with more positive group attitudes, improves positive self-concept, and protects against the negative effects of discrimination through its influences on self-esteem and racial identity (Davis & Stevenson, 2006; Harris-Britt, Valrie, Kurtz-Costes, & Rowley, 2007; Neblett, Rivas-Drake, & Umaña-Taylor, 2012).

These conversations can be quite challenging for both the client and clinician, and the racial mismatch of the dyad may present additional challenges. Clinicians, regardless of multicultural competence training, may feel inept in their ability to engage clients in conversations about race-related topics. However, research underscores the importance of multicultural competence. Specifically, client ratings of therapist multicultural competence accounted for approximately 37% of the variance in working alliance, 52% of the variance in client satisfaction, and 8.4% of the variance in therapy outcomes (Tao, Owen, Pace, & Imel, 2015). Therefore, it is crucial that graduate programs adequately and actively prepare *both* supervisees and supervisors with skills necessary to treat a diverse array of clients.

Study Limitations and Future Directions

This study has several strengths and makes meaningful contributions to the internalized racism literature. It is the first study to our knowledge that has examined the interplay of racial discrimination and internalized racism longitudinally. Also, it is one of just a handful of studies that examines indicators of mental, rather than physical, health symptom distress. However, there are several limitations. First, participants are college students at a predominantly White university. Thus, these findings may not generalize to Black students at predominantly Black

institutions or community samples. Additionally, a majority of the sample was female. Future work should examine these questions in a gender-balanced sample of college and community early adults. The gender composition of the sample may be especially important for future research on internalized racism given that the IROS was validated on a sample that was 80% female (Bailey et al., 2011). The authors found a significant main effect for gender in the scores of the hair change subscale such that females scored higher than males. Though gender only accounted for 7% of the variance of this subscale, it suggests that gender impacted the scores on the subscale and may have played a role in the retention of this factor in the exploratory and confirmatory factor analyses. Furthermore, the reliabilities for the belief in the biased representation of history and hair change subscales were modest, which may have compromised power or ability to detect effects in the study.

Second, the present study did not have a large enough sample to examine within-group ethnic differences. Previous work has suggested that internalized racism may operate differently in certain groups. Specifically, Molina and James (2016) found that internalized racism was associated with increased odds of past-year MDD for African Americans, but not Afro-Caribbeans. In contrast, Mouzon and McLean (2017) found that internalized racism was positively associated with depression and psychological distress for both foreign-born and American-born Blacks, but this association was strongest among American-born Blacks. These findings highlight that Blacks are not a monolithic group and it is important to examine the interplay of racial discrimination and internalized racism across the diaspora. Context may play an important role in these associations. For example, an immigrant from Barbados or Ghana may not have experienced frequent instances of racial discrimination or internalized racism prior to arriving to this country. It is important to acknowledge that although racial discrimination and

internalized racism are not phenomena unique to America, our history of slavery, Jim Crow, and institutional racism are contextual factors that might influence the intensity of these racial stressors. Relatedly, phenotype may play an important role in these associations. For example, some biracial individuals with light skin may experiences fewer instances of racial discrimination, or "pass" as White, given that they may not have stereotypically Black features. As a result of their phenotype, they may harbor lower levels of internalized racism since they identify with more than one racial group. Future research should examine how within-group differences influence the interplay between racial discrimination, internalized racism, and mental health outcomes.

Third, future research should take a person-, rather than variable-, centered approach to examining internalized racism. This would enable us to identify unique combinations of dimensions across individuals. By understanding these unique combinations, we can then examine how they may correlate with or shape developmental outcomes. For example, future work could investigate how profiles of internalized racism may impact health outcomes. This would be an excellent next step given that this is one of the first studies to examine Bailey et al.'s (2011) internalized racism subscales. Additionally in light of the shared theoretical roots of racial identity and internalized racism, their simultaneous examination may shed light on whether there is also shared statistical variance across these concepts.

Conclusion

This study examined the associations among racial discrimination, internalized racism, and mental health symptom distress. Through the use of a longitudinal design, this study adds to the current literature by examining the interplay of racial discrimination and internalized racism over time. Results revealed racial discrimination experiences were longitudinally associated with

anxiety symptom distress. Additionally, there were significant interactions between racial discrimination and alteration of physical appearance and internalization of negative stereotypes in predicting Wave 3 somatic and Wave 2 anxiety symptom distress, respectively. Therefore, internalized racism is a crucial factor to consider when examining the link between racial discrimination and mental health outcomes among Black emerging adults. Future work should continue to examine the internalized racism subscales, as well as indices of mental health functioning, such as somatic symptom distress, that are not typically examined.

Table 1 Intercorrelations, Means, Standard Deviations for Key Study Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1. Cohort	-																														
2. Age	.430**	-																													
3. Gender	010	.024	-																												
4. Maternal education	.114	.001	.146	-																											
5. RD Wave 1	060	097	.155	.026	-																										
6. RD Wave 2	025	103	.190*	.059	.767**	-																									
7. RD Wave 3	.342**	.040	.055	.097	.525**	.669**	-																								
8.BRH Wave 1	281**	162*	019	111	030	110	177	-																							
9. APA Wave 1	139	193*	.046	.103	.060	.125	018	.366**	-																						
10. INS Wave 1	190	176*	.135	.035	.120	.109	.087	.458**	.499**	-																					
11. HC Wave 1	022	071	.283**	040	158*	089	100	.219**	.251**	.177*	-																				
12. IRC Wave 1	220**	218**	012	.017	.016	.041	055	.678**	.815**	.779**	.525**	-																			
13. BRH Wave 2	122	201*	027	027	119	061	210*	.641**	.213*	.351**	.235**	.463**	-																		
14. APA Wave 2	033	124	.203*	.203*	.035	.041	043	.236**	.730**	.373**	.096	.559**	.242*	-																	
15. INS Wave 2	121	173*	.202*	.202*	.149	.119	.107	.448**	.416**	.650**	.166	.592**	.320**	.466**	-																
16. HC Wave 2	.015	114	211*	211*	120	089	114	.275**	.304**	.211*	.752**	.494**	.273**	.299**	.197*	-															
17. IRC Wave 2	094	220**	.094	.094	.000	.019	084	.548**	.658**	.587**	.404**	.772**	.608**	.797**	.737**	.591**	-														
18. BRH Wave 3	083	159	.139	.139	030	165	171	.598**	.140	.201*	.133	.341**	.537**	.219*	.351**	.188	.448**	-													
19. APA Wave 3	029	121	.233*	.233*	.009	.024	100	.325**	.729**	.438**	.209*	.659**	.178	.779**	.432**	.271**	.673**	.383**	-												
20. INS Wave 3	042	127	.278**	.278**	.083	.035	.008	.274**	.423**	.629**	.102	.538**	.158	.453**	.627**	.155	.543**	.346**	.606**	-											
21. HC Wave 3	.082	075	211*	211*	209*	231*	240*	.308**	.281**	.201*	.737**	.503**	.365**	.258**	.168	.809**	.553**	.257**	.286**	.136	-										
22. IRC Wave 3	043	172	.180	.180	035	098	168	.522**	.593**	.533**	.367**	.728**	.400**	.640**	.564**	.459**	.779**	.676**	.850**	.759**	.528**	-									
23. GSI Wave 1	.095	.056	067	067	.478**	.453**	.340**	.067	.281**	.145	.039	.212**	002	.234**	.252**	.034	.209*	090	.244*	.157	020	.121	-								
24. Depression Wave 1	.164*	.058	151	151	.383**	.351**	.311**	.036	.227**	.100	002	.150	006	.150	.177*	.049	.147	137	.154	.103	.022	.060	.909**	-							
25. Anxiety Wave 1	.039	.056	.004	.004	.396**	.341**	.191	.108	.261**	.186*	.048	.232**	.061	.277**	.264**	.092	.267**	050	.272**	.070	.006	.120	.827**	.699**							
26. Somatization Wave 1	.060	.019	.000	.000	.358**	.396**	.338*	.018	.204*	.133	.100	.177*	.006	.242**	.194*	.101	.213*	027	.223	.268**	013	.180	.690**	.520**	.644**	-					
27. Depression Wave 2	.014	.085	072	072	.250**	.346**	.222*	.048	.188*	.108	084	.117	.057	.137	.199*	.006	.147	141	.140	.121	066	.044	.608**	.605**	.462**	.380**	-				
28. Anxiety Wave 2	001	.021	015	015	.325**	.381**	.334*	.103	.127	.130	074	.115	.047	.132	.266**	.036	.172*	076	.049	.121	076	.021	.577**	.467**	.560**	.485**	.651**	-			
29. Somatization Wave 2	.077	116	003	003	.184*	.264**	.152	013	.079	.037	.001	.048	.085	.129	.089	.083	.134	.007	.088	.173	.011	.095	.437**	.328**	.384**	.549**	.489**	.608**	-		
30. Depression Wave 3	.008	044	249**	249**	.257**	.236*	.259**	009	.082	.083	002	.067	006	.151	.097	.059	.123	155	001	092	.072	068	.511**	.529**	.370**	.242*	.506**	.354**	.184	-	
31. Anxiety Wave 3	015	089	123			.397**		.029	.135	.134	063	.105		.287**		.021	.196	093	.029	.033	105	039	.565**	.469**	.435**	.452**	.401**	.618**	.426**	.598**	-
32. Somatization Wave 3	111	174		066	.390**		.354**	.076	.127	.150	051	.124	.065	.191	.207*	.066	.200*	035	.074	.081	041	.033	.543**					.477**			.681**
Mean	.57	18.30	1.31	4.54	1.34	1.22	1.54	2.40	1.95	1.87	2.67	2.17	2.20	1.87	1.76	2.60	2.05	2.06	1.71	1.65	2.55	1.94	.91	.39	.47	.85	.35	.43	.81	.34	.37
S.D.	.50	.47	.46	1.43	1.00	1.04	.85	.57	.72	.76	.81	.51	.55	.67	.67	.79	.46	.57	.60	.62	.69	.44	.70	.47	.43	.64	.40	.41	.69	.41	.34

Note. RD = Racial Discrimination. BRH = Belief in the biased representation of history. APA = alteration of physical appearance. INS = Internalization of negative stereotypes. HC = hair change. IRC = Internalized racism composite. GSI = Global Severity Index.

Table 2. Hierarchical Multiple Regression Analysis Predicting Somatization Symptoms From Racial Discrimination and Alteration of Physical Appearance

Predictor	B (SE)	eta	p
Step 1			
Intercept	.53 (.10)	1.01	.00**
Cohort	08 (.07)	11	.24
Age	08 (.07)	06	.32
Gender	11 (.07)	29	.10
Maternal education	.01 (.02)	.03	.62
GSI Wave 1	.21 (.09)	.18	.03*
Somatization Wave 1	.36 (.09)	.30	.00**
Step 2			
RD Wave 1	.05 (.04)	.10	.16
BRH Wave 1	.02 (.06)	.02	.76
APA Wave 1	06 (.05)	09	.23
INS Wave 1	.06 (.05)	.09	.23
HC Wave 1	06 (.04)	09	.18
Step 3			
$RD \times BRH$.02 (.05)	0.03	.69
$RD \times APA$	11 (.04)	19	.01**
$RD \times INS$.04 (.04)	.06	.41
$RD \times HC$	05 (.04)	06	.30

Note. GSI = Global Severity Index. RD = Racial Discrimination. BRH = Belief in the biased representation of history. APA = Alteration of physical appearance. INS = Internalization of negative stereotypes. HC = Hair change. IRC = Internalized racism composite. * p < .05. **p < .01.

Table 3.

Hierarchical Multiple Regression Analysis Predicting Anxiety Symptoms From Racial Discrimination and Internalization of Negative Stereotypes

Predictor	B (SE)	β	p
Step 1			
Intercept	.37 (.10)	.70	.00**
Cohort	05 (.07)	07	.48
Age	.04 (.07)	.03	.60
Gender	01 (.07)	03	.88
Maternal education	.01 (.02)	.02	.80
GSI Wave 1	.32 (.11)	.28	.01**
Anxiety Wave 1	.24 (.11)	.20	.04*
Step 2			
RD Wave 1	.04 (.04)	.08	.24
BRH Wave 1	.09 (.07)	.10	.17
APA Wave 1	07 (.05)	09	.20
INS Wave 1	.05 (.05)	.07	.37
HC Wave 1	06 (.04)	09	.17
Step 3			
$RD \times BRH$	03 (.06)	03	.62
$RD \times APA$	01 (.04)	02	.74
$RD \times INS$.12 (.05)	.16	.02*
$RD \times HC$.09 (.05)	.11	.06

Note. GSI = Global Severity Index. RD = Racial Discrimination. BRH = Belief in the biased representation of history. APA = Alteration of physical appearance. INS = Internalization of negative stereotypes. HC = Hair change. IRC = Internalized racism composite. * p < .05. **p < .01.

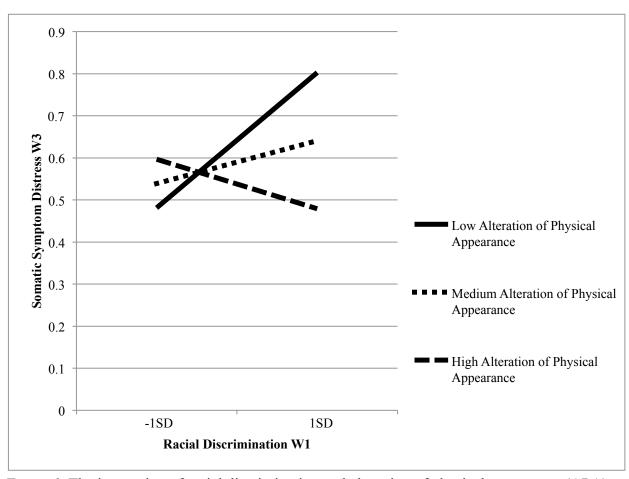


Figure 1. The interaction of racial discrimination and alteration of physical appearance (APA) on Wave 3 somatic symptom distress.

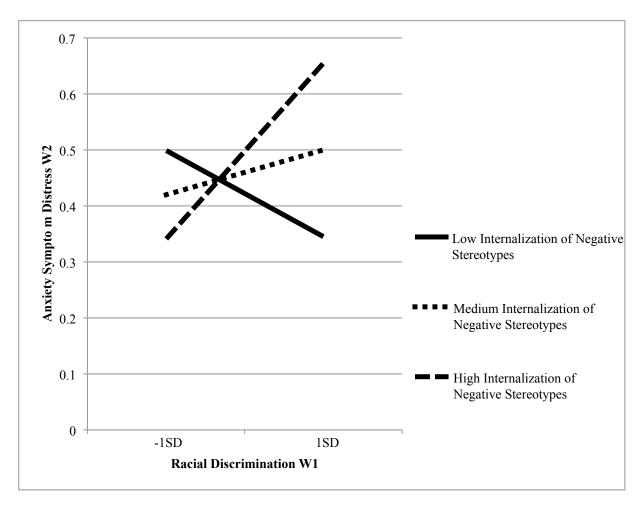


Figure 2. The interaction of racial discrimination and internalization of negative stereotypes (INS) on Wave 2 anxiety symptom distress.

APPENDIX A: DAILY LIFE EXPERIENCES SCALE (DLE; HARRELL, 1994)

The next questions ask you to think about how being Black relates to experiences you have had IN THE PAST YEAR. On the left side, tell us how often you have experienced each event because you were Black. On the right side, tell us how much it bothered you when the experience happened.

	How often did it happen to you because of race? 0 = never 1 = once 2 = a few times 3 = about once a month 4 = a few times a month 5 = once a week or more	How much did it bother you? 0 = never happened to me 1 = didn't bother me at all 2 = bothered me a little 3 = bothered me somewhat 4 = bothered me a lot 5 = bothered me extremely
a. Being ignored, overlooked or not given service (in a restaurant, store, etc.)		
b. Being treated rudely or disrespectfully		
c. Being accused of something or treated suspiciously		
d. Others reacting to you as if they were afraid or intimidated		
e. Being observed or followed while in public places		
f. Being treated as if you were "stupid", being "talked down to"		
g. Your ideas or opinions being minimized, ignored, or devalued		
h. Overhearing or being told an offensive joke or comment		
i. Being insulted, called a name, or harassed		

j. Others expecting your work	
to be inferior	
k. Not being taken seriously	
1. Being left out of	
conversations or activities	
m. Being treated in an	
"overly" friendly or	
superficial way	
n. Other people avoiding you	
o. Being mistaken for	
someone who serves others	
(i.e., janitor)	
p. Being stared at by strangers	
q. Being laughed at, made fun	
of, or taunted	
r. Being mistaken for	
someone else of your same	
race	

APPENDIX B: THE INTERNALIZED RACIAL OPPRESSION SCALE (IROS; BAILEY ET AL., 2011)

Please read the statements below and indicate for each experience whether you strongly disagree, "1"; somewhat disagree, "2"; neutral, "3"; somewhat agree, "4"; strongly agree, "5" by circling the corresponding number.

		Strongly disagree]	Neutral	-	Strongly agree
	There were no institutions of higher learning in Africa.	1	2	3	4	5
	Earlier Egyptians were either White or Arabic.	1	2	3	4	5
	The earliest civilizations were in Africa.	1	2	3	4	5
Ε	The first mathematicians and scientists were European.	1	2	3	4	5
	There were universities and other learning tenters in Africa more than 2,000 years ago.	1	2	3	4	5
	There were Africans in the Americas prior to Europeans.	1	2	3	4	5
7. (Cannibalism was widely practiced in Africa.	1	2	3	4	5
8. I	wish my nose was narrower.	1	2	3	4	5
9. I	Having full lips is not attractive to me.	1	2	3	4	5
10. I	wish my skin was lighter than it is now.	1	2	3	4	5
	would like a partner with lighter skin, to nsure that my children will have lighter skin.	1	2	3	4	5
12. <i>A</i>	African people have no written history.	1	2	3	4	5
	t is fine to use skin care products to lighten kin color.	1	2	3	4	5
14. I	Lighter skin is more attractive.	1	2	3	4	5
	t is okay for Black people to change their appearance through surgery.	1	2	3	4	5
16. I	wish I looked more White.	1	2	3	4	5
17. E	Black women are controlling.	1	2	3	4	5
18. E	Black women are confrontational.	1	2	3	4	5
	Money management is something that Black beople cannot do.	1	2	3	4	5
20. E	Black men are irresponsible.	1	2	3	4	5
21. N	Most criminals are Black men.	1	2	3	4	5
22. E	Black people are lazy.	1	2	3	4	5
23. N	Most Black people are on welfare.	1	2	3	4	5
24. I	t is okay to straighten or relax my hair.	1	2	3	4	5
25. I	prefer my hair to be natural.	1	2	3	4	5
	like it when my partner wears/(I would like it f my partner wore) his/her hair natural.	1	2	3	4	5
	texturize my hair.	1	2	3	4	5
28. S	Straight hair is better than my natural hair	1	2	3	4	5

texture.

APPENDIX C: THE SYMPTOM CHECKLIST 90-REVISED (SCL-90-R; DEROGATIS, 1996)

The SCL-90-R test consists of a list of problems people sometimes have. Read each one carefully and circle the number of the response that best describes HOW MUCH THAT PROBLEM HAS DISTRESSED OR BOTHERED YOU DURING THE PAST 7 DAYS INCULDING TODAY. Circle only one number for each problem. Do not skip any items. If you change your mind, draw an X through your original answer and then circle your new answer.

HOW MUCH WERE YOU DISTRESSED BY:

	Not At All	A Little Bit	Moderately	Quite A Bit	Extremely
1. Headaches	0	1	2	3	4
2. Nervousness or shakiness inside	0	1	2	3	4
Repeated unpleasant thoughts that won't leave your mind	0	1	2	3	4
4. Faintness or dizziness	0	1	2	3	4
5. Loss of sexual interest or pleasure	0	1	2	3	4
6. Feeling critical of others	0	1	2	3	4
7. The idea that someone else can control your thoughts	0	1	2	3	4
8. Feeling others are to blame for most of your troubles	0	1	2	3	4
9. Trouble remembering things	0	1	2	3	4
10. Worried about sloppiness or carelessness	0	1	2	3	4
11. Feeling easily annoyed or irritated	0	1	2	3	4
12. Pains in heart or chest	0	1	2	3	4
13. Feeling afraid in open spaces or on the streets	0	1	2	3	4
14. Feeling low in energy or slowed down	0	1	2	3	4
15. Thoughts of ending your life	0	1	2	3	4
16. Hearing voices that other people do not hear	0	1	2	3	4
17. Trembling	0	1	2	3	4
18. Feeling that most people cannot be trusted	0	1	2	3	4
19. Poor appetite	0	1	2	3	4

20. Crying easily	0	1	2	3	4
21. Feeling shy or uneasy with the opposite sex	0	1	2	3	4
22. Feeling of being trapped or caught	0	1	2	3	4
23. Suddenly scared for no reason	0	1	2	3	4
24. Temper outbursts that you could not control	0	1	2	3	4
25. Feeling afraid to go out of your house alone	0	1	2	3	4
26. Blaming yourself for things	0	1	2	3	4
27. Pains in lower back	0	1	2	3	4
28. Feeling blocked in getting things done	0	1	2	3	4
29. Feeling lonely	0	1	2	3	4
30. Feeling blue	0	1	2	3	4
31. Worrying too much about things	0	1	2	3	4
32. Feeling no interest in things	0	1	2	3	4
33. Feeling fearful	0	1	2	3	4
34. Your feelings being easily hurt	0	1	2	3	4
35. Other people being aware of your private thoughts	0	1	2	3	4
36. Feeling others do not understand you or are unsympathetic	0	1	2	3	4
Feeling that people are unfriendly or dislike 37. you	0	1	2	3	4
38. Having to do things very slowly to insure correctness	0	1	2	3	4
39. Heart pounding or racing	0	1	2	3	4
40. Nausea or upset stomach	0	1	2	3	4
41. Feeling inferior to others	0	1	2	3	4
42. Soreness of your muscles	0	1	2	3	4
Feeling that you are watched or talked about 43. by others	0	1	2	3	4

44. Trouble falling asleep	0	1	2	3	4
Having to check and double-check what you 45. do	0	1	2	3	4
46. Difficulty making decisions	0	1	2	3	4
47. Feeling afraid to travel on buses, subways, or trains	0	1	2	3	4
48. Trouble getting your breath	0	1	2	3	4
49. Hot or cold spells	0	1	2	3	4
50. Having to avoid certain things, places, or activities because they frighten you	0	1	2	3	4
51. Your mind going blank	0	1	2	3	4
52. Numbness or tingling in parts of your body	0	1	2	3	4
53. A lump in your throat	0	1	2	3	4
54. Feeling hopeless about the future	0	1	2	3	4
55. Trouble concentrating	0	1	2	3	4
56. Feeling weak in parts of your body	0	1	2	3	4
57. Feeling tense or keyed up	0	1	2	3	4
58. Heavy feelings in your arms or legs	0	1	2	3	4
59. Thoughts of death or dying	0	1	2	3	4
60. Overeating	0	1	2	3	4
61. Feeling uneasy when people are watching or talking about you	0	1	2	3	4
62. Having thoughts that are not your own	0	1	2	3	4
63. Having urges to beat, injure, or harm someone	0	1	2	3	4
64. Awakening in the early morning	0	1	2	3	4
65. Having to repeat the same actions such as touching, counting, washing	0	1	2	3	4
66. Sleep that is restless or disturbed	0	1	2	3	4
67. Having urges to break or smash things	0	1	2	3	4
68. Having ideas or beliefs that others do not share	0	1	2	3	4

69. Feeling very self-conscious with others	0	1	2	3	4
Feeling uneasy in crowds, such as shopping or 70. at a movie	0	1	2	3	4
71. Feeling everything is an effort	0	1	2	3	4
72. Spells of terror or panic	0	1	2	3	4
Feeling uncomfortable about eating or 73. drinking in public	0	1	2	3	4
74. Getting into frequent arguments	0	1	2	3	4
75. Feeling nervous when you are left alone	0	1	2	3	4
76. Others not giving you proper credit for your achievements	0	1	2	3	4
77. Feeling lonely even when you are with people	0	1	2	3	4
78. Feeling so restless you couldn't sit still	0	1	2	3	4
79. Feelings of worthlessness	0	1	2	3	4
The feeling that something bad is going to 80. happen to you	0	1	2	3	4
81. Shouting or throwing things	0	1	2	3	4
82. Feeling afraid you will faint in public	0	1	2	3	4
Feeling that people will take advantage of you 83. if you let them	0	1	2	3	4
Having thoughts about sex that bother you a 84. lot	0	1	2	3	4
85. The idea that you should be punished for your sins	0	1	2	3	4
86. Thoughts and images of a frightening nature	0	1	2	3	4
87. The idea that something serious is wrong with your body	0	1	2	3	4
88. Never feeling close to another person	0	1	2	3	4
89. Feelings of guilt	0	1	2	3	4
The idea that something is wrong with your 90. mind	0	1	2	3	4

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