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# Racial Discrimination and Depressive Symptoms Among African-American Men: The Mediating and Moderating Roles of Masculine Self-Reliance and John Henryism

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## Abstract

Despite well-documented associations between everyday racial discrimination and depression, mechanisms underlying this association among African-American men are poorly understood. Guided by the Transactional Model of Stress and Coping, we frame masculine self-reliance and John Henryism as appraisal mechanisms that influence the relationship between racial discrimination, a source of significant psychosocial stress, and depressive symptoms among African-American men. We also investigate whether the proposed relationships vary by reported discrimination-specific coping responses. Participants were 478 African-American men recruited primarily from barbershops in the West and South regions of the United States. Multiple linear regression and Sobel-Goodman mediation analyses were used to examine direct and mediated associations between our study variables. Racial discrimination and masculine self-reliance were positively associated with depressive symptoms, though the latter only among active responders. John Henryism was negatively associated with depressive symptoms, mediated the masculine self-reliance–depressive symptom relationship, and among active responders moderated the racial discrimination-depressive symptoms relationship. Though structural interventions are essential, clinical interventions designed to mitigate the mental health consequences of racial discrimination among African-American men should leverage masculine self-reliance and active coping mechanisms.

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**Keywords**

racial discrimination; masculinity; John Henryism; depression; stress and coping

The World Health Organization cites depression as the leading cause of years lived with disability worldwide and the second greatest contributor to global disease burden among adults ages 15–59 (World Health Organization, 2003, 2009). Studies examining depression in women far outnumber comparable studies in men (Addis, 2008), a fact resulting partly from a longstanding lower male to female prevalence ratio (Centers for Disease Control & Prevention, 2010; Klerman & Weissman, 1989; Wetzel, 1994). However, as the gender gap in the prevalence of depression is narrowing over time (Addis, 2008; Kessler, Chiu, Demler, & Walters, 2005; Möller-Leimkühler, 2002; Oliffe & Phillips, 2008; Stoolmiller, Kim, & Capaldi, 2005), researchers are paying increasing attention to depression among men. Additionally, national estimates likely underestimate true population prevalence of depression among men because they are less likely than women to have a usual source of primary care, where depression screening often occurs, and utilize mental health services less frequently (Addis & Mahalik, 2003; Chuick et al., 2009; Cochran & Rabinowitz, 2000; DeVoe, Fryer, Phillips, & Green, 2003).

Conflicting evidence further surrounds depression prevalence estimates for ethnic minority men. Though some studies demonstrate higher prevalence among African-American men compared with non-Hispanic White men (Neighbors, Jackson, Bowman, & Gurin, 1983; Somervell, Leaf, Weissman, Blazer, & Bruce, 1989), more recent evidence either documents no racial differences or higher depression among non-Hispanic White men (Blazer, Kessler, McGonagle, & Swartz, 1994; Kessler et al., 2003). However, solely comparing depression rates by race masks important confounders that may bias prevalence estimates. Non-Hispanic White men have higher lifetime prevalence rates of major depressive disorder but African-American men have higher lifetime prevalence rates of chronic dysphoria (Riolo, Nguyen, Greden, & King, 2005), suggesting a need for a race-specific examination of depression. Further, lower depression estimates among African-American men are likely a function of this group's lower tendency to regularly interface with health care institutions (Blewett, Johnson, Lee, & Scal, 2008), resulting from lack of health insurance and high medical mistrust (Centers for Disease Control & Prevention, 2008; Hammond, 2010; Hammond, Matthews, Mohottige, Agyemang, & Corbie-Smith, 2010; Hammond, Matthews, & Corbie-Smith, 2010). Despite these challenges, depression remains a significant and understudied health problem among African-American men (Joe & Marcus, 2003; Williams et al., 2007). Hence, further research is warranted to understand factors beyond health care access that increase African-American men's depression risk, expression, and reporting.

Studies also show that expression and reporting of depression among men is sometimes compromised by rigid endorsement of traditional male role norms, behaviors or characteristics men should ideally possess (Thompson & Pleck, 1986). These norms are comprised of several dimensions such as restrictive emotionality, toughness and aggression, and self-reliance (Addis, 2008; Addis & Mahalik, 2003; Levant, 1996; Rochlen et al., 2010). Such norms instruct men to mask their pain and use active coping strategies to address

psychosocial stress, strategies which can exacerbate depression because they prevent men from accessing necessary mental health resources (Addis, 2008; Mahalik, Good, & Englar-Carlson, 2003). African-American men define traditional male role norms differently than non-Hispanic White males (Hammond & Mattis, 2005). Recent findings also suggest that African-American men's endorsement of some traditional male role norms increases their likelihood of health help-seeking (Hammond, Matthews, Mohottige, et al., 2010). However, few studies evaluate the influence of traditional male role norms on African-American men's experiences of depression. We address this scientific gap by investigating the association between masculine self-reliance and depressive symptomatology in the context of psychosocial stress among African-American men.

Psychosocial stress, though broadly defined, is one of the most cited correlates of depression (Hammen, 2004; Kessler, 1997). However, relatively little is known about linkages between psychosocial stress and depression among African-American men, especially as it relates to stressful social experiences shaped by race (Wade, 1996). Racial discrimination is a widely cited source of race-related psychosocial stress associated with various negative health behaviors and outcomes (Brown et al., 2000; Landrine & Klonoff, 1996; Schulz et al., 2006; Williams, Neighbors, & Jackson, 2008; Williams, Yu, Jackson, & Anderson, 1997). African-American men are more likely to report racial discrimination experiences than African-American women (Banks, Kohn-Wood, & Spencer, 2006; Borrell, Kiefe, Williams, Diez-Roux, & Gordon-Larsen, 2006; Sellers & Shelton, 2003), especially the more subtle everyday "microaggressions" (Harrell, 2000; Pierce, 1995) defined as "brief and commonplace daily verbal, behavioral, and environmental indignities" (Sue et al., 2007, p. 271). We focus on the frequency of these chronic and subtle racial discrimination exposures and their relationship with African-American men's self-reported depressive symptomatology.

With notable exceptions (Hammond, 2012; Watkins, Green, Rivers, & Rowell, 2006), few studies move beyond investigating direct associations to explore mechanisms linking everyday racial discrimination and depression among African-American men. However, exploring mechanisms linking racial discrimination to depression are critical to understanding why some individuals exposed to racial discrimination experience poor mental health while others do not. Racial discrimination experiences also impact African-American men's definitions of masculinity, as these experiences necessitate continual adaptation to social conditions that can compromise attempts to fulfill traditional male roles (Hammond & Mattis, 2005; Staples, 1978). Few studies examine how traditional male role norms influence the association between racial discrimination and depressive symptoms among African-American men, even though recent research indicates that one dimension of traditional male role norms–masculine self-reliance is associated with fewer depressive symptoms in the context of racial discrimination among African-American men (Hammond, 2012). One potential explanation for this finding is that masculine self-reliance shapes coping disposition and, consequently, actual responses to racial discrimination. The current study considers this possibility by investigating the interplay between masculine self-reliance and one active coping disposition frequently used by (and studied among) African-American men—John Henryism (James, 1994; Neighbors, Jackson, Broman, & Thompson, 1996). John Henryism is a generalized coping disposition characterized by a persistent effort

to master stress experiences. It is also important to determine how African-American men respond to racial discrimination and whether these responses mitigate or exacerbate depression. Thus, we further consider racial discrimination-specific coping responses.

The purpose of this study is threefold. First, we sought to determine the association between racial discrimination and depressive symptoms among African-American men and whether masculine self-reliance and John Henryism moderate that association. Second, we explored whether John Henryism mediates the relationship between masculine self-reliance and depressive symptoms. Third, we investigated differences in these mediating and moderating relationships between men who reported actively responding to discrimination and those reporting they did not. The empirical and theoretical rationale for these approaches is provided in the following sections.

## Masculine Self-Reliance, Coping, and Depression

Traditional male role norms are multidimensional and encompass qualities that men are taught to value (Levant, Hirsch, Celentano, & Cozza, 1992). Masculine self-reliance is one dimension and includes norms encouraging autonomy and independent decision-making (Addis & Mahalik, 2003; Levant et al., 1992). Men who strongly value masculine self-reliance experience more depressive symptoms and seek help less often for depression than those placing a limited value on this norm (Addis & Mahalik, 2003; Good, Dell, & Mintz, 1989). Greater endorsement of masculine self-reliance also decreases men's likelihood of seeking support for or managing the negative psychological effects of microaggressions (Good & Wood, 1995).

Several studies demonstrate an adverse relationship between masculine self-reliance and mental health outcomes, including depression (Burns & Mahalik, 2006; Mahalik, Good, et al., 2003; Mahalik et al., 2003). Self-reliance is also associated with active coping dispositions, such as John Henryism, which is particularly salient for African-American men (James, 1994; Snowden, 2001). One study of adolescents demonstrates that African Americans use active coping strategies informed by self-reliance more frequently than non-Hispanic White adolescents (Chapman & Mullis, 2000).

While often associated with negative mental health outcomes (Addis & Mahalik, 2003; Good et al., 1989), Hammond (2012) finds that masculine self-reliance was associated with fewer depressive symptoms among African Americans aged 18–29 and 40 and older. Despite conventional wisdom, another study documents decreased preventive screening delays among African-American men reporting greater masculine self-reliance (Hammond, Matthews, Mohottige, et al., 2010). These conflicting results may be explained by a threshold effect, whereby endorsement of this norm in moderation encourages active coping, thereby improving sense of control and mastery over one's situation and ultimately resulting in better mental health. In abundance, however, masculine self-reliance could produce harmful psychological effects attributable to "wear and tear" produced by persistent efforts to actively cope with repetitive stressors (Chu, Porche, & Tolman, 2005; James, Hartnett, & Kalsbeek, 1983). We further explore these possible modifying effects of masculine self-

reliance on depressive symptoms among African-American men with different coping disposition levels and racial discrimination response types.

## John Henryism, Racial Discrimination, and Depression

Having a disposition to use active coping strategies generally protects individuals from experiencing depression in the face of both general stress and racism-related stress exposures (Caughy, O'Campo, & Muntaner, 2004; Krieger, Kosheleva, Waterman, Chen, & Koenen, 2011). John Henryism is one strategy used by African-American men to cope with the deleterious effects of racist social environments (James, 1994). John Henryism refers to an "individual's self-perception that he can meet the demands of his environment through hard work and determination" (James et al., 1983, p. 263). It is an active coping style characterized by persistent effort and an underlying belief that with enough hard work, one is able to meet, master, or overcome the demands of their environment (James et al., 1983). John Henryism is particularly salient for studying chronic or everyday race-related micro-aggressions. These subtle exposures appear controllable but require constant active coping, which over time compromises health (Bennett et al., 2004; James, 1994; James et al., 1983). Studies show beneficial effects of John Henryism on mental health and depression among African-American men but arguably do not sufficiently explore the potential negative mental health costs of persistent active coping (Kiecolt, Hughes, & Keith, 2009; McDougald et al., 2009; Neighbors, Njai, & Jackson, 2007). Other scholarship articulates that social environments rife with racial discrimination may facilitate higher endorsement of traditional male role norms (Connolly, 1994; Pierre, Mahalik, & Woodland, 2002). Therefore, African-American men may use John Henryism strategies, in part, because doing so allows them to cope with discrimination in a manner consistent with traditional male role norms (Riska, 2006).

Studies typically focus on coping dispositions overlooking the probability that individual coping may also be situation-specific (Lazarus & Folkman, 1984). Moos and Holahan (2003) present an integrated framework that distinguishes between coping dispositions and context-dependent coping behavior. The framework posits that a relatively stable coping style or disposition must be viewed alongside situational coping efforts to fully understand the coping process. Past research illustrates that *coping styles*, "individuals' habitual interactions with their environment," do not always translate into *coping efforts*, "strategies individuals employ to manage specific stressful encounters" (Carver, Scheier, & Weintraub, 1989; Moos & Holahan, 2003). Consequently, we consider the roles played by masculine self-reliance and John Henryism within the context of whether or not men actively respond to racial discrimination experiences.

## Theoretical Framework and Conceptual Model

We use the Transactional Model of Stress and Coping to examine associations between racial discrimination, masculine self-reliance, John Henryism, and depressive symptoms among African-American men (Lazarus & Folkman, 1984). The model suggests that individuals vary in the stress-and-coping strategies they use and that coping strategies influence the impact of stress on health outcomes. Lazarus and Folkman (1984) distinguish

between primary and secondary stress appraisals. Primary appraisal refers to individuals' judgments about whether situations are threatening, while secondary appraisal refers to the determination of the coping strategies or resources available to effectively manage perceived threats. According to the framework, coping strategies and responses ultimately influence health outcomes. We also draw on evidence documenting associations between masculine role norms and stress-and-coping processes (Eisler & Skidmore, 1987; Levant, 1996; O'Neil, Good, & Holmes, 1995) to support hypothesized linkages between our study variables (see Figure 1). Specifically, we propose that masculine self-reliance and John Henryism play a role in the primary and secondary appraisal of racial discrimination, respectively. We posit that masculine self-reliance functions as an ideological lens through which men evaluate racial discrimination experiences as stressful or threatening and that masculine self-reliance shapes coping dispositions and responses to racial discrimination.

## Study Hypotheses

Consistent with prior literature (Brown et al., 2000; Kessler, Mickelson, & Williams, 1999; Krieger, 2000; Schulz et al., 2006), we expected racial discrimination to be positively related to depressive symptomatology. As illustrated by our conceptual model (see Figure 1), we anticipated that higher masculine self-reliance would be associated with greater depressive symptoms and John Henryism would be associated with fewer depressive symptoms (Hypothesis 1). We further hypothesized that the association between racial discrimination and depressive symptoms would be stronger among men scoring higher on the masculine self-reliance scale and tempered among men reporting higher levels of John Henryism (Hypothesis 2). Additionally, we expected John Henryism to mediate the relationship between masculine self-reliance and depressive symptoms (Hypothesis 3). We further predicted the racial discrimination–depressive symptoms relationship would be stronger among men reporting high masculine self-reliance but weaker among men reporting high John Henryism (Hypothesis 4). Our presumption was that men with higher masculine self-reliance would experience greater psychological grievance from racial discrimination because it can disempower men and run counter to male role norms encouraging autonomy. John Henryism, however, would buffer men from the depressionogenic effects of racial discrimination because it inspires men to actively respond to these stressors. Thus, we hypothesized that this buffering effect would be strongest for men who report responding actively to discrimination than for those reporting they did not (Hypothesis 5).

## Method

### Study Participants and Procedures

Convenience sampling methods were used to recruit 458 community-residing African-American men from barbershops (78.1%) and academic institutions (21.9%) in the West and South regions of the United States from 2007–2010. Participants aged 18 and older (mean age 31.5 years) were recruited through flier advertisements, direct contact, as well as word-of-mouth. Most men were employed at least part-time (78.1%), completed at least some college (64.0%), and had an annual income less than $40,000 (71.6%).

Barbershops with a high customer volume (i.e., those shops that had a wait time between 30 and 60 minutes and saw at least 30 customers per day) were primary recruitment sites because they are patronized by African-American men across the socioeconomic spectrum and have been used successfully to implement health promotion interventions (Hart & Bowen, 2004). Initial contact with participating barbershops was made in-person or by telephone by an African-American female principal investigator. The research team consisted of four African-American men, four African-American women, and one South-Asian woman. At least two members of the research team followed-up in person with more detailed information. Signed consent forms were obtained from barbershop owners. Barbers or receptionists invited patrons to complete the survey. Men completed anonymous self-administered surveys onsite while waiting to be serviced and received a voucher for a free haircut, valued at $25 for their study participation. As an incentive for participation, barbers were able to keep the remaining value from the study participants haircut for their business. Public, 4-year historically Black colleges and universities and predominately White universities served as academic recruitment sites. Recruitment methods were similar at academic institutions. Study personnel approached African-American men in high-traffic areas (e.g., student union, cafeteria) during lunch hours or other breaks. Participants at academic institutions received $25 gift cards. All study procedures were reviewed and approved by the Public Health-Nursing Institutional Review Board at The University of North Carolina at Chapel Hill.

## Measures

**Sociodemographics—**Participants completed questions assessing the following sociodemographic characteristics: age (measured in years), and level of education (≤high school degree, some college, college or graduate/professional degree). Annual income was also assessed with nine categories spanning $10,000 increments anchored at no annual income to $80,000 or above, but because of the distribution of income in the sample this variable was split into three categories (<$20,000, $20–39,999, ≥$40,000).

**Depressive symptomatology—**A 12-item short version of the Center for Epidemiologic Studies Depression Scale (CES-D) was used to assess depressive symptomatology (Radloff, 1977). Participants rated items (e.g., “I felt that I was just as good as other people) on a scale ranging from 0 (*rarely or none of the time*) to 3 (*most or all of the time*). A mean score was calculated with higher scores indicating more depressive symptomatology. The CES-D has been widely validated in the general population and has demonstrated good reliability in African-American samples (Long Foley, Reed, Mutran, & DeVellis, 2002; Nguyen, Kitner-Triolo, Evans, & Zonderman, 2004), though we did not find studies that examined the psychometric properties of the CES-D specifically for African-American men. We found good internal reliability of this scale in our sample ($\alpha$ = .78).

**Racial discrimination—**The 18-item Daily Life Experiences Scale (DLE-R) from the Racism and Life Experiences Scales (RaLES; Harrell, 1997b) was used to assess the frequency of everyday racial discrimination experiences. Participants were asked to “determine how often you have experienced each event because of your race or racism in the past year” and were then given a list of specific events. The list of events closely mirror the

taxonomy and themes described above by Sue and colleagues (2007) for the types of microaggressions commonly experienced by African Americans. Participants rated each event (e.g., "Being treated rudely or disrespectfully") on a scale ranging from 0 (*never*) to 5 (*once a week or more*). The RaLES and its subscales, including the DLE-R, have undergone previous psychometric validation with African Americans though information specific to African-American men was unavailable (Harrell, 1997a). Reliability for this scale in our sample was excellent ($\alpha$ = .96).

**Masculine self-reliance—**Masculine self-reliance was assessed with the seven-item self-reliance subscale of the Male Role Norms Inventory (MRNI; Levant et al., 1992). Participants rated each item (e.g., A man should never count on someone else to get the job done") on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The MRNI has demonstrated high construct validity and moderate reliability with Cronbach's alpha for the self-reliance subscale ranging from .51 to .78 (Levant & Majors, 1997; Levant & Richmond, 2007). Studies conducted among African-American men report reliability coefficients ranging from .71 to .75 (Hammond, 2012; Hammond, Matthews, Mohottige, et al., 2010). The Cronbach's alpha for this measure in the current study was good at .77.

**John Henryism—**The John Henryism was assessed with the 12-item John Henryism Active Coping scale (JHAC12; James, 1996). Participants were asked "How true is the following statement for you?" and were given a list of specific statements (e.g., "When things don't go the way I want them to that makes me work even harder"). Participants rated each statement on a scale ranging from 1 (*completely false*) to 5 (*completely true*). The JHAC12 has been psychometrically validated in both African-American and non-Hispanic White populations, with preliminary findings failing to find gender-differences, and has demonstrated high reliability with reported Cronbach's alpha ranging from .61 to .80 (Fernander, Durán, Saab, Llabre, & Schneiderman, 2003). Cronbach's alpha for the JHAC12 in this study was excellent at .88.

**Neuroticism—**Neuroticism was assessed using an eight-item version of the neuroticism subscale within the revised NEO Personality Inventory (NEO PI-R; Costa & McCrae, 1992). This measure was included as a control because it has been shown to be a confounder of the relationship between perceived discrimination and depressive symptoms (Huebner, Nemeroff, & Davis, 2005). Participants rated statements (e.g., "I see myself as someone who gets nervous easily") on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Though reliability data for African-American men was unavailable, the NEO PI-R has been validated and demonstrated high internal reliability in a variety of cross-cultural settings, leading to the wide acceptance that its psychometric properties are generally universal for all people (McCrae & Costa, 1997). Cronbach's alpha for this scale was .72.

**Discrimination-specific coping responses—**Participants' self-reported responses to racial discrimination were assessed with a single-item question, "When I have been wronged or mistreated by others because of my race or racism, I have tried to do something about it." Response options were either "no" or "yes." Participants responding "yes" were classified as "active responders."

### Data Analysis

Preliminary analyses ($\chi^2$ and *t* test) were first conducted to determine whether participants recruited from barbershops and academic institutions differed by sociodemographic, control, and main study variables. Similarly, we conducted analyses to determine whether men who responded actively and nonactively to racial discrimination differed by these variables. Finally, we conducted bivariate analyses (Pearson's correlations) to determine relationships between our continuous study variables.

Multiple linear regression analyses were used to assess direct relationships between our study variables. Mediation was assessed using procedures and criteria as outlined by Sobel (1982) and Zhao, Lynch, and Chen (2010). The criteria set forth by Zhao et al. do not rely on multiple statistical tests as required from the classical approach outlined by Baron and Kenny (1986). These criteria only require a statistically significant mediated effect, essentially eliminating all but the last step from the Baron and Kenny method, and increasing the capacity to confirm mediation. Tests for moderation were conducted using procedures outlined by Frazier, Tix, and Barron (2004). To reduce problems associated with multicollinearity, all continuous independent variables were centered.

Multicollinearity was assessed by examining variance inflation factors (VIFs); any VIFs greater than 5 were considered to be indicative of multicollinearity (Menard, 1995). Less than 5% of data were missing for each variable, with the exception of income, which was missing for 7.5% of participants. Analysis suggested these data were missing at random so five iterations of multiple imputation were conducted to generate separate datasets, which were then combined and analyzed (Sinharay, Stern, & Russell, 2001). Means before and after imputation were compared using *t* tests, and no statistically significant differences were found. All statistical analyses were conducted using SAS software for Windows, version 9.2 (SAS Institute Inc., Cary, NC) and were assessed with two-tailed tests considered significant at an a priori alpha level of .05.

## Results

### Descriptive Characteristics

Characteristics of our study sample are presented in Table 1. Preliminary analyses indicated differences between men recruited from barbershops ($n = 344$) and academic institutions ($n = 96$), and among active ($n = 283$) and nonactive ($n = 147$) responders to racial discrimination (Data not shown in Table). Compared with men recruited from educational institutions, men recruited from barbershops were older (34.2 vs. 21.7 years), reported less neuroticism (2.53 vs. 2.68), and less depressive symptomatology (11.61 vs. 15.46). Men recruited from barbershops were also more likely to report an annual income greater than $40,000 (35.1% vs. 6.7%). The results from this preliminary analysis also indicated statistically significant differences by racial discrimination response types (active vs. nonactive). Men who did not actively respond to racial discrimination were younger than those men who actively responded (29.6 vs. 32.2 years) and were also less likely to have an annual income greater than $40,000 (22.6% vs. 31.4%). Compared with men who actively responded to racial discrimination, nonactive responders had higher CES-D scores (13.32 vs.

11.74), lower levels of masculine self-reliance (4.17 vs. 4.61), and lower levels of John Henryism (3.66 vs. 3.97). No other significant recruitment site or coping response type differences were observed. As a result of these findings, we controlled for recruitment site type in all multivariate regression models and stratified our results by racial discrimination response type.

## Bivariate Analyses

Correlations between our study variables, stratified by racial discrimination response types, are presented in Table 2. Racial discrimination, masculine self-reliance, and neuroticism were positively associated with depressive symptomatology. Masculine self-reliance was positively associated with John Henryism. Though the statistical significance of study correlations did not differ by discrimination-specific active coping response, the correlation between masculine self-reliance and John Henryism was slightly stronger among men who did not respond actively to discrimination ($p < .05$).

## Multivariate Analyses

Multivariate analyses predicting depressive symptomatology are provided in Table 3. In Model 1, we regressed depressive symptomatology on racial discrimination, masculine self-reliance, and John Henryism. In Model 2 we added the product terms (racial discrimination × masculine self-reliance, and racial discrimination × John Henryism) to test the significance of the hypothesized interactions. The interaction between masculine self-reliance and racial discrimination was not statistically significant (data not shown), so the interaction term was excluded from all regression models. Control variables were included in both models. VIFs ranged from 1.06 to 1.53, indicating that our models had no problem with multicollinearity. Each model had high explanatory power; models explained 48% to 51% of the variance in depressive symptomatology.

**Direct effects—**Regardless of discrimination-specific coping response (active vs. nonactive), and controlling for other variables, both racial discrimination and John Henryism had effects on depressive symptomatology in the hypothesized positive directions. Masculine self-reliance had no effect on depressive symptomatology for those men who did not actively respond to discrimination. But, as hypothesized, masculine self-reliance was positively associated with depressive symptomatology among active responders, (B = .68, $p = .01$).

**Mediation effects—**Our mediation hypotheses were confirmed (See Figure 2). Specifically, John Henryism mediated the relationship between masculine self-reliance and depressive symptomatology in the full sample ($z = -4.08$, $p < .001$), among active responders ($z = -2.58$, $p < .01$), and those who did not respond actively to racial discrimination ($z = -2.43$, $p < .05$).

**Moderation effects—**Consistent with our hypotheses, the interaction between John Henryism and racial discrimination was significant ($p < .05$) (see Figure 3). The positive association between racial discrimination and depressive symptomatology was weaker for

men with high John Henryism than men with low John Henryism. Also, this moderated effect only held true for men who reported actively responded to racial discrimination.

## Discussion

This theory-guided investigation builds on and extends past research demonstrating positive associations between racial discrimination and depressive symptoms (Brown et al., 2000; Landrine & Klonoff, 1996; Schulz et al., 2006; Williams et al., 2008; Williams et al., 1997). Responding to the call for studies identifying underlying mechanisms in the racial discrimination– depressive symptoms relationship (Williams & Mohammed, 2009), we examined the mediating and moderating roles of masculine self-reliance and John Henryism. The study findings generally support our hypotheses and suggest that the positive relationship between racial discrimination and depressive symptoms among African-American men is influenced by their sense of masculine self-reliance and their active coping dispositions and responses. Further, broadening current understanding of the role played by gender in stress-and-coping processes, our findings imply that John Henryism is partly inspired by traditional male role norms encouraging masculine self-reliance. To our knowledge, this study is among the first to quantitatively and conjointly examine relationships between masculine role norms, John Henryism, and depressive symptoms among African-American men.

Conflicting with prior findings that masculine self-reliance may reduce depressive symptoms among African-American men (Hammond, 2012), we found masculine self-reliance was associated with more depressive symptomatology in this study. However, this relationship was only observed among men reporting actively coping with racial discrimination. Though masculine self-reliance can foster action in the face of adversity, rigid adherence to traditional male role norms may decrease help-seeking and consequently increase depressive symptoms (Addis, 2008; Addis & Mahalik, 2003). The masculine self-reliance subscale consists of items about one's beliefs that a man should maintain a posture of independence by relying on himself, not others, to get things done. A strong sense of self-reliance in the face of insurmountable racial discrimination may result in more depressive symptoms among men who are active responders because of their inability to rectify the situation. Failure to rectify pertinent situations may be discordant with one's self-concept leading to heightened depressive symptomatology. We believe that our findings provide insights about which coping dispositions and responses to racial discrimination lead African-American men to yield the least psychological benefit from endorsing masculine self-reliance.

As predicted, men with higher John Henryism reported fewer depressive symptoms, a result we attribute to the previously cited beneficial impact of active coping dispositions on mental health (Caughy et al., 2004; Krieger et al., 2011; Noh & Kaspar, 2003). Lower depressive symptomatology among men exhibiting high John Henryism could also be a consequence of a greater sense of mastery and control—personality constructs shown to buffer African-American men from the negative mental health effects of discrimination (Watkins et al., 2006). Active coping dispositions are also diametrically opposed to the declining effort, low energy, and dampened mood characteristic of depression (Neighbors et al., 2007). It should

be noted that the mean age of the study sample was 31 years. Because the John Henryism hypothesis suggests that more active coping over time compromises health and well-being, it is likely that our findings among this relatively younger sample underestimates the true effect of John Henryism on depressive symptoms. We would expect larger effects in an older sample that would have experienced more cumulative burden. We also observed interesting and somewhat surprising findings when we examined these moderated relationships by racial discrimination response type. Though greater levels of John Henryism weakened the positive relationship between discrimination and depressive symptomatology, this moderated effect was only present among active responders. So while John Henryism may be generally beneficial to African-American men's mental health by reducing depressive symptoms, it appears to only protect against the harmful effect of discrimination for men who actively respond to that discrimination. Our moderated results empirically support the integrative framework presented by Moos and Holahan (2003), which articulates coping disposition and behavior as two separate entities. We did not assess what men *actually* did in response to racial discrimination experiences. Thus, we cannot exclude the possibility that the actions taken led to less than desirable outcomes. An important next step in this line of research will be to advance our understanding of the range of responses African-American men use to cope with racial discrimination.

We caution readers against deducing that John Henryism is uniformly associated with less depression in the context of racial discrimination. Especially because John Henryism, as pointed out by Neighbors et al. (2007), may not lessen depression if men cling too tightly to high-effort coping in the presence of powerful stressors. Chronic exposure to racial discrimination coupled with John Henryism may create psychological "wear and tear" (McEwen, 2004) resulting in poorer mental health among African-American men over time. Several studies point to the harmful physical health implications of sustained John Henryism among African Americans, especially those with more limited socioeconomic means (Bennett et al., 2004; James, 1994; James, Strogatz, Wing, & Ramsey, 1987). Future longitudinal studies should explore the impact of protracted John Henryism in the face of racial discrimination on African-American men's mental health.

Men in our study who responded actively to racial discrimination also reported fewer depressive symptoms than men who did not. Similar to extant research (Hänninen & Aro, 1996), this finding indicates that actively addressing unjust experiences can be beneficial to mental health. Active coping is also more likely to be used by individuals in the face of stress who feel more self-efficacious and believe that they will be able to control their outcomes (Bandura, 1997). Men who did not actively respond to discrimination may experience more depressive symptoms because of anticipated regret, the expectation of future regret because of current or present-day choices (Reb, 2008). Failure to take action when affronted by discrimination runs counter to traditional male role norms and African-American definitions of manhood (Hammond & Mattis, 2005). Anticipated regret might also be inspired by gender role conflicts produced by the perceived failure to address racial discrimination "like a man." Indeed, studies document a positive relationship between gender role conflicts and depression (Good & Wood, 1995; Sharpe & Heppner, 1991). Given the ideas advanced by theorists (Jackson & Knight, 2006), it is also plausible that both gender role conflicts and anticipated regret in the aftermath of discrimination contribute to

African-American men's higher substance use prevalence in discrimination's aftermath (Borrell et al., 2007). Researchers should investigate this probability. While we consider these ideas, it is critical to note that efforts to actively respond to discrimination may be obstructed by sociostructural barriers. Such barriers are reflected by lower objective and subjective socioeconomic status. Active responders in our sample reported the highest income and thus may have perceived fewer outward constraints on their capacity to do something about racial discrimination. Though we did not assess the context in which our study participants live, a constrained ability to act in the event of discrimination may explain why those men recruited at educational institutions (who are younger and less likely to have annual income greater than $40,000) were less likely to report an active response to discrimination.

We acknowledge that our study is plagued by frequently described limitations arising from self-reported retrospective data. Although we purposely focused on everyday race-related micro-aggressions (Harrell, 2000; Sue et al., 2007), future research should examine how masculine self-reliance, John Henryism, and coping responses interact to impact depression associated with major discriminatory events. As our study was cross-sectional, we must be cautious in claiming that documented relationships are causal. For example, Baker (2001) suggests that for some African Americans, foregoing active coping behaviors may not be a response to stressors per se, but in fact may be one (under diagnosed) way in which depression manifests; without longitudinal data we cannot determine whether coping dispositions and responses come first in the causal pathway. Finally, as this study was cross-sectional we cannot discount the possibility of reverse causality— that more depressed men are simply less likely to engage in active coping behavior. Though this consideration warrants further exploration, longitudinal studies affirm that experiences of discrimination precede adverse mental and physical health outcomes (Pavalko, Mossakowski, & Hamilton, 2003; Schulz et al., 2006).

Despite limitations, the present study advances our understanding of how racial discrimination exerts its impact on African-American men's mental health. Together, these findings imply that clinical and public health interventions should mindfully leverage masculine self-reliance. Specifically, clinicians will want to help African-American men use masculine self-reliance and active coping to detect and seek help for depressive symptoms. However, they should also assist men to recognize when extreme self-reliance thwarts the possible benefits of active coping and actually facilitates rather than combats depressive symptoms. Psychother-apeutic practice should focus also on minimizing men's emotion restriction often accompanying their attempts to cope independently with racial discrimination and exacerbates its effect on depressive symptomatology (Hammond, 2012). Public Health researchers should also seek to better understand the social, economic, and political structures, which maintain disparate social conditions and practices. Studies are underway in this regard. Public Health interventions can use creative methods like Photo-voice (Ornelas et al., 2009) and spoken word that provide public forums for African-American men to describe the impact of racial discrimination on their lived experiences in their own words. We advise against solely focusing on improving African-American men's capacity to cope effectively with racial discrimination. Rather, we also call for more studies

examining sociostructural barriers simultaneously permitting these practices to persist and reinforcing men's commitment to health damaging traditional male role norms.

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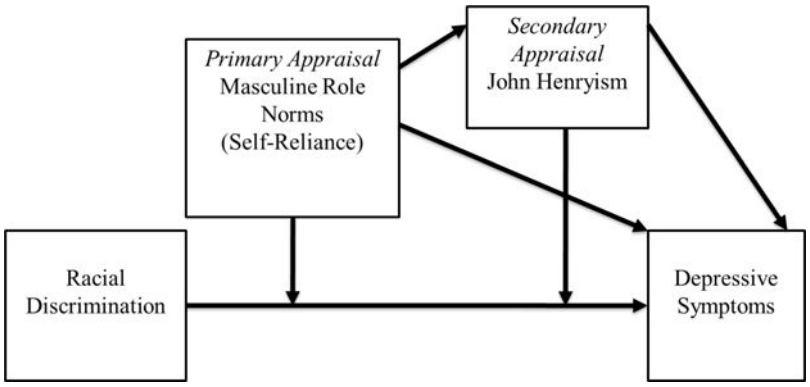


**Figure 1.**

The mediating and moderating roles of masculine self-reliance and John Henryism in the racial discrimination–depressive symptoms relationship.

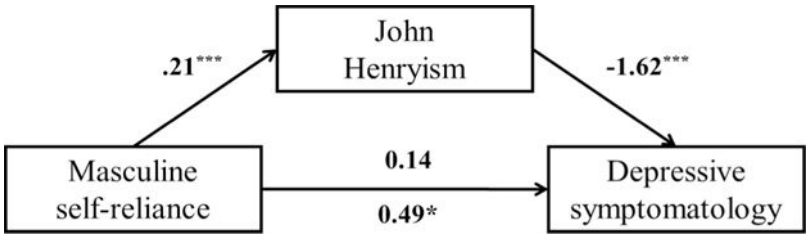


**Figure 2.**

John Henryism as a mediator of the relationship between masculine self-reliance and depressive symptoms (Full Sample). *$p < .05$, ***$p < .001$; Sobel test $z$-value = −4.08, $p < .001$.

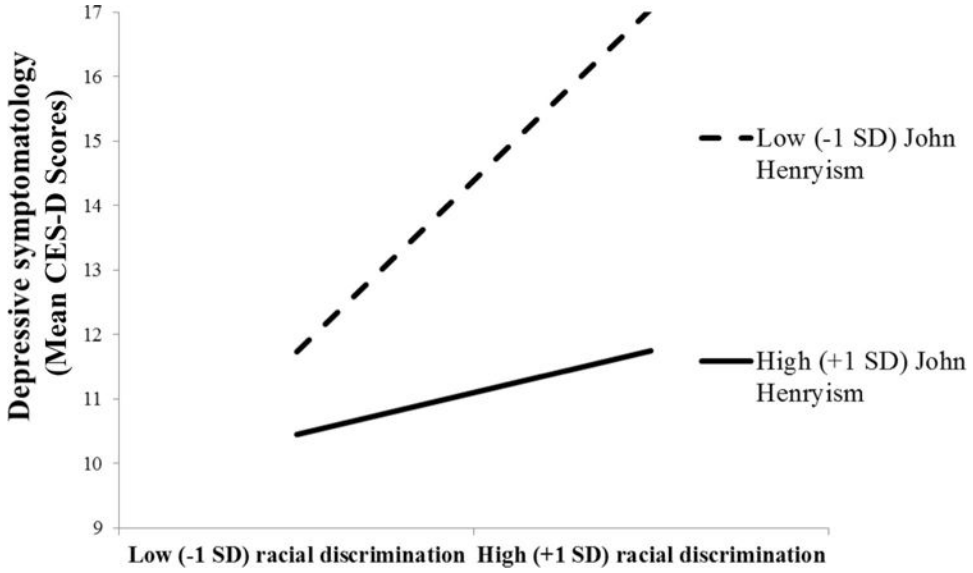


**Figure 3.**

John Henryism as moderator of the relationship between racial discrimination and depressive symptoms (Active Discrimination Responders Only). CES-D = Centers for Epidemiologic Studies Depression Scale.

## Table 1

Characteristics of Study Sample

| Variable | Full sample (*n* = 478) | Active coping response | | *P* value |
|---|---|---|---|---|
| | | No (*n* = 147) | Yes (*n* = 283) | |
| Age, *M* (*SD*) | 31.51 (10.95) | 29.64 (10.94) | 32.23 (10.62) | .02 |
| Education, No. (%) | | | | .37 |
| ≤High school | 162 (35.92) | 52 (35.62) | 102 (36.43) | |
| Some college | 159 (35.25) | 61 (41.78) | 90 (32.14) | |
| College/graduate or professional degree | 130 (28.82) | 33 (22.60) | 88 (31.43) | |
| Income, No. (%) | | | | <.01 |
| <$20,000, % | 173 (41.00) | 67 (50.76) | 97 (36.19) | |
| $20,000 – $39,999, % | 129 (30.57) | 36 (27.27) | 85 (31.72) | |
| ≥$40,000, % | 120 (28.44) | 29 (21.97) | 86 (32.09) | |
| Recruitment site, No. (%) | | | | <.01 |
| Barbershop | 344 (78.18) | 99 (70.71) | 229 (83.27) | |
| Educational institution | 96 (21.82) | 41 (29.29) | 46 (16.73) | |
| Neuroticism, *M* (*SD*) | 2.54 (0.65) | 2.60 (0.59) | 2.53 (0.66) | .31 |
| Depressive symptomatology, *M* (*SD*) | 12.28 (6.05) | 13.32 (5.92) | 11.74 (5.97) | <.01 |
| Frequency of racial discrimination, *M* (*SD*) | 1.89 (1.18) | 1.90 (1.19) | 1.89 (1.17) | .95 |
| Masculine self-reliance, *M* (*SD*) | 4.46 (1.07) | 4.17 (1.13) | 4.61 (1.00) | <.001 |
| John Henryism, *M* (*SD*) | 3.87 (0.69) | 3.66 (0.79) | 3.97 (0.60) | <.001 |

*Note*. Comparisons for between-group differences are based on the $\chi^2$ statistic for categorical variables and the *t* statistic for continuous variables.

**Table 2**

Correlations Between Measures Stratified by Racial Discrimination-Specific Coping Response Type

| Variable | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Active coping response, *n* = 283 | | | | | |
| 1. Depressive symptoms (CES-D scores) | 1.0 | .40*** | .59*** | .08 | −.35*** |
| 2. Frequency of racial discrimination | .29*** | 1.0 | .32*** | −.02 | −.08 |
| 3. Neuroticism | .65*** | .24** | 1.0 | .01 | −.37*** |
| 4. Masculine self-reliance | −.15 | .08 | −.05 | 1.0 | .24*** |
| 5. John Henryism | −.47*** | −.08 | −.37*** | .43*** | 1.0 |
| No active coping response, *n* 147 | | | | | |

*Note.* Correlations presented below the diagonal are for those men who did not try to do something about racism, while correlations presented in the above the diagonal are for those men who did try to do something about racism. CES-D = Center for Epidemiologic Studies Depression Scale.

* p < .05.

** p < .01.

*** p < .001.

**Table 3**

Depressive Symptoms Predicted by Racial Discrimination, Masculine Self-Reliance, and John Henryism

| | Beta coefficient (SE) | | | | | |
|---|---|---|---|---|---|---|
| | Full sample ($n$ = 478) | | No active coping response ($n$ = 147) | | Active coping response ($n$ = 283) | |
| **Variable** | **Model 1** | **Model 2** | **Model 1** | **Model 2** | **Model 1** | **Model 2** |
| Age | −0.04 (0.02)*** | −0.04 (0.02) | 0.02 (0.04) | 0.03 (0.04) | −0.06 (0.03) | −0.05 (0.03) |
| Education | −0.94 (0.28)*** | −0.93 (0.28)*** | −1.15 (0.48)* | −1.15 (0.48)* | −0.81 (0.35)* | −0.75 (0.35)* |
| Income | −0.44 (0.31) | −0.43 (0.31) | −0.34 (0.51) | −0.49 (0.52) | −0.49 (0.40) | −0.52 (0.41) |
| Recruitment site (ref = barber) | 1.62 (0.59)** | 1.57 (0.59)*** | 2.28 (0.90)* | 2.42 (0.92) | 1.19 (0.78) | 0.99 (0.78) |
| Neuroticism | 3.88 (0.36)*** | 3.89 (0.36)*** | 4.68 (0.67)*** | 4.54 (0.69)*** | 3.62 (0.44)*** | 3.54 (0.44)*** |
| Racial discrimination | 1.12 (0.18)*** | 1.13 (0.18)*** | 0.94 (0.31)** | 1.04 (0.32)** | 1.23 (0.23)*** | 1.40 (0.24)*** |
| Masculine self-reliance | 0.49 (0.20)* | 0.47 (0.20)* | −0.05 (0.33) | 0.00 (0.36) | 0.84 (0.26)** | 0.80 (0.26)** |
| John Henryism | −1.63 (0.34)*** | −1.63 (0.34)*** | −1.41 (0.51)** | −1.33 (0.51)** | −1.55 (0.48)*** | −1.55 (0.48)** |
| Interaction: racial discrimination × John Henryism | | −0.20 (0.26) | | 0.42 (0.40) | | −0.80 (0.37)** |
| Model adjusted $R^2$ | .49 | .50 | .51 | .51 | .48 | .49 |

*$p$ < .05.

**$p$ < .01.

***$p$ < .001.