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Is John Henryism a Health Risk or Resource? Exploring the Role of Culturally Relevant Coping for Physical and Mental Health among Black Americans

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Abstract

Research shows that John Henryism, a high-effort, active coping style, is associated with poor physical health, whereas others suggest it may be psychologically beneficial. As such, it is unclear whether John Henryism represents a health risk or resource for Black Americans and whether its impact varies across sociodemographic and gender groups. The present study used data from a representative community sample of Black Americans (n = 627) from the Nashville Stress and Health Study (2011–2014) to clarify the physical and mental health consequences of John Henryism by assessing its relationship with depressive symptoms and allostatic load (AL). Results indicate that John Henryism is associated with increased AL scores and fewer depressive symptoms. Additionally, the association between John Henryism and AL is conditional on socioeconomic status. Study results underscore the importance of evaluating both physical and mental health to clarify the health significance of John Henryism among Black Americans.

Keywords

allostatic load; Black Americans; coping; depressive symptoms; John Henryism

A substantial body of research has documented paradoxical health patterns among Black Americans such that this group generally reports positive mental health (i.e., a lower prevalence of psychiatric disorders) despite limited socioeconomic resources, heightened exposure to social stress, and poor physical health outcomes (Barnes and Bates 2017; Mouzon et al. 2016; Thomas Tobin 2021). Studies have sought to identify what may be contributing to these unexpected patterns. The social stress paradigm (SSP; Pearlin et al. 1981; Turner 2013) is a dominant theoretical perspective utilized to evaluate group differences in health. The SSP posits that groups of disadvantaged status will have poorer physical and mental health outcomes than groups of advantaged status due to increased exposure to stressors, lifetime adversity, and fewer socioeconomic resources (Barnes and Bates 2017; Williams et al. 1997; Wilson 2009). However, the health patterns of Black

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SUPPLEMENTAL MATERIAL

Appendix A is available in the online version of the article.

Americans are not always consistent with this expectation (Barnes and Bates 2017). Moreover, the SSP emphasizes the role of coping resources as a vital part of the stress process and posits that these individual-level attributes may buffer the negative effects of social stress on health (Turner, Taylor, and Van Gundy 2004). Although recent research suggests that Black Americans may draw on unique coping resources that facilitate particular health patterns, there has been limited consideration of the ways that culturally relevant coping resources may shape health among this group (Assari 2019; Greer 2007; Greer and Brown 2011). Thus, evaluating the role of group-specific coping resources is needed to shed new light on the processes underlying the health patterns of Black Americans.

Prior research has identified *John Henryism* as a form of coping commonly utilized by Black Americans to deal with stressors (Bennett et al. 2004; James 1994), although this coping style is also used among other groups. John Henryism is also one of the few empirically tested constructs that considers the social and cultural experiences of Black Americans (Trawalter, Richeson, and Shelton 2009). Inspiration for the John Henryism construct was derived from both a folk hero named "John Henry," who was a Black steel driver, and John Henry Martin, a real-life sharecropper in the 1940s (James 1993, 1994; James, Hartnett, and Kalsbeek 1983). In the late nineteenth-century folk story, John Henry competed with a machine to drive steel for railroad construction. Although he beat the machine, John Henry collapsed and died right after the challenge, and his death was attributed to physical and mental exhaustion after utilizing all his resources (James 1994; James et al. 1983). Much later, Dr. Sherman James met a man named John Henry Martin, a sharecropper whose health deteriorated early due to persistent efforts to achieve financial security during the Jim Crow era (James et al. 1983).

Research suggests that John Henryism developed as a way for Black Americans to respond to growing challenges of structural racism (James 1994, 2019). In particular, scholars theorize that following the Civil War, previously enslaved communities had to develop an identity that reflected and demonstrated American values, including hard work and perseverance, in efforts to solidify a different standing within society while also combatting systemic oppression (James 1994, 2019). Because coping styles are typically shared from one generation to the next, largely due to similar societal contexts and social positions, John Henryism may serve a similar function for Black Americans (Hall 2018; James 1994, 2019; Meyer, Schwartz, and Frost 2008; Pearlin et al. 1981). Thus, John Henryism is characterized as a persistent, high-effort, active coping style used in the face of challenging psychosocial and environmental stressors (James 1994; James et al. 1983). For instance, someone who engages in high John Henryism is more likely to actively address stressors and face challenges with vigor, dedication, and determination. On the contrary, those with low John Henryism tend to become discouraged or easily overwhelmed by life's struggles. Because John Henryism importantly shapes how individuals deal with stressors, differences in this coping style may contribute to the unexpected health patterns observed among Black Americans. Taken together, the purpose of this article is to examine the physical and mental health significance of John Henryism among Black Americans.

BACKGROUND

Most of the research assessing the link between John Henryism and health has focused on physical health outcomes, concluding that John Henryism is detrimental for physical health (Bennett et al. 2004; James 1994; James et al. 1983). However, much of this work has been limited to specific health outcomes, with studies often focusing on hypertension (Bennett et al. 2004; James 1994, 2019; James et al. 1983). For example, prior work has demonstrated that John Henryism increases risk for hypertension and cardiovascular-disease-related outcomes (James 1994; James et al. 1983). This may be because high-effort coping can be physiologically strenuous, which contributes to increased stress on the body that eventually results in less than optimal physical health (Bennett et al. 2004; James 1994; James et al. 1983). Alternatively, others posit that engaging in high-effort coping may promote health behaviors that improve physical health, such as healthy diet, management of stress, consistent medical checkups, lowered alcohol consumption, less smoking, and more exercise among Black American men (Lehto and Stein 2013). Therefore, although John Henryism poses significant risk for some physical health outcomes, its impact on overall health status more broadly remains unclear.

Although the association between John Henryism and physical health has been widely examined, only a handful of studies have evaluated the association between John Henryism and mental health. Previous studies hypothesized that high levels of John Henryism are psychologically protective because it provides individuals with greater mental fortitude to persevere through difficult times (Bennett et al. 2004). For example, Kiecolt, Hughes, and Keith (2009) found that elevated levels of John Henryism are linked to improved mental health for low socioeconomic status (SES) Black Americans. Similarly, Bronder and colleagues (2014) found that John Henryism is negatively related to depressive symptoms among Black women, a finding that Hudson and colleagues (2016) supported for depression among Black Americans. Thus, evidence suggests that John Henryism is beneficial for mental health but potentially detrimental for physical health (Bennett et al. 2004; James et al. 1983; Kiecolt et al. 2009). Perhaps this is why we see unanticipated physical–mental health patterns in the face of stressors and other risks among Black Americans. To this end, there is a need to clarify the mental health significance of John Henryism among Black Americans, along with physical health, to better understand whether John Henryism is a risk or resource for the overall health of this group.

John Henryism, Health, and Socioeconomic Status

One possible explanation for the limited understanding of whether John Henryism is a health risk or resource among Black Americans is that most studies have focused on those of low or high SES (Bennett et al. 2004; Bonham, Sellers, and Neighbors, 2004; Hudson et al. 2016). As such, the health impact of engaging in John Henryism as an individual of moderate SES is unclear. The John Henryism hypothesis (JHH) argues that low-SES individuals who engage in high levels of John Henryism are more likely to report poor health outcomes, such as hypertension, due to the combination of high-effort coping and a lack of socioeconomic resources (Bennett et al. 2004; James 1994, 2019; James et al. 1983; Subramanyam et al. 2013). Conversely, those of high SES who engage in high

levels of John Henryism do not seem to experience an increased risk for poor health outcomes (Bennett et al. 2004; James 1994, 2019). Consequently, engaging in the high-effort coping involved in John Henryism when one has limited socioeconomic resources may be especially psychologically and physiologically taxing compared with engaging in John Henryism when one has adequate socioeconomic resources with which to effectively address life's challenges as they arise (Bennett et al. 2004; James 1994, 2019; James et al. 1983). Accordingly, there is a need to assess the ways in which John Henryism shapes the health of groups who do not hold a low or high SES.

John Henryism, Health, and Gender

Although prior research has shown no gender differences in the John Henryism scores of Black Americans (Bennett et al. 2004; James et al. 1983), some research suggests that there may be important gender differences in its health consequences (Bennett et al. 2004; Dressler, Bindon, and Neggers 1998; Subramanyam et al. 2013). However, the role of gender in shaping levels of John Henryism has not been widely assessed in prior research (James 2019). Among the few studies that have examined gender differences in the health consequences of John Henryism, results indicate that its influence may be conditional on gender such that there is a diminished health impact among Black women. For example, Dressler and colleagues (1998) noted that among Black men, the risk of hypertension increases at higher levels of John Henryism. However, risk for hypertension decreases with increasing John Henryism among Black women. Moreover, Subramanyam and colleagues (2013) found partial support for the JHH with hypertension among Black men but not among Black women. A recent systematic review of the JHH among Black women also demonstrated mixed findings (Felix et al. 2019). More specifically, although some studies have found support for the JHH, others have yielded results that are opposite of what the JHH posits, and some have not found an association at all (Felix et al. 2019). Given that the John Henryism construct was developed based on the experiences and characteristics of Black men, most studies have focused on the ways it influences this population.

Nevertheless, Black women's distinct experiences of gendered racism[1] may condition the health impact of John Henryism (James 2019). Research has shown that an individual's social position shapes access to coping resources, the types of coping resources, and the efficacy of these coping resources, particularly as it relates to health outcomes (Meyer et al. 2008; Pearlin et al. 1981). In alignment with SSP, this is most significant for those of disadvantaged social status, including Black Americans and marginalized subgroups within this population, such as Black women (Pearlin et al. 1981). To this end, it is possible that the health impacts of John Henryism among Black women in particular may be masked because of these experiences. To our knowledge, there has only been one study to consider gender differences in the impact of John Henryism on mental health among Black Americans. In their study on racial and ethnic patterns in John Henryism, American values, and depressive symptoms, Neighbors, Njai, and Jackson (2007) presented a supplemental analysis to suggest that the impact of John Henryism on depressive symptoms may be similar among

[1]Gendered racism has been conceptualized in a few ways, with the most prominent as the intersection of both racism and sexism experienced by Black women (Essed 1991; Thomas, Witherspoon, and Speight 2008).

Black women and men. However, few have empirically assessed the mechanisms through which John Henryism may differentially shape mental health of Black Americans by gender. In light of these findings, it is important that we evaluate SES and gender differences when assessing the association between John Henryism and the health of Black Americans. Consequently, there is a need to understand whether the health impacts of John Henryism among Black Americans are consistent for different subgroups of this population.

The Present Study

To clarify the role of John Henryism as a health risk or resource and to better understand how it may shape the distinct health patterns of Black Americans, the present study examined the association between John Henryism and both mental and physical health among Black women and men. To evaluate the significance of John Henryism for physical health, the present study utilized allostatic load (AL). AL is typically defined as an indicator physiological dysregulation that occurs as a response to stress (McEwen and Seeman 1999). AL is an appropriate measure of physical health status for a few reasons. Not only does AL assess the physiological impact of cumulative adversity, this measure of physiological dysregulation also provides an overall examination of physical health status that may be better suited than examining individual health outcomes (Brown, Turner, and Moore 2016; McEwen and Seeman 1999; Ong et al. 2017; Thomas Tobin, Robinson, and Stanifer 2019). The present study is the first to assess the links between John Henryism and AL among Black American adults and the first to examine the impact of John Henryism on both physical and mental health among this group.

To evaluate the significance of John Henryism for mental health, the present study utilized depressive symptoms. Assessing depressive symptoms is beneficial because they provide a strong assessment of subclinical risk and generalized distress, which tends to be influenced by stress exposure (Kessler 1979; Pearlin et al. 1981). Given the mental health paradox, which emphasizes the relatively low rates of psychiatric disorders and the high rates of psychological distress among this population (Assari 2019; Barnes and Bates 2017; Barnes, Keyes, and Bates 2013; Mouzon et al. 2016; Thomas Tobin, Erving, and Barve 2021), we also chose to focus on depressive symptoms because it might provide more insight into the mental health challenges of Black Americans. Taken together, the present study seeks to shed light on the ways that John Henryism as a form of culturally relevant coping may contribute to unexpected physical and mental health patterns among Black Americans. To clarify the role of John Henryism as a health risk or resource among Black Americans, the present study examines the physical and mental health consequences of John Henryism and assesses whether the association between John Henryism and health varies by gender and SES.

DATA AND METHODS

The Nashville Stress and Health Study (NSAHS, 2011–2014) was used to conduct statistical analyses for the present study. The NSAHS is a community survey of Black American and white American adults residing in Nashville, Tennessee. A multistage, stratified sampling approach was used to obtain a random sample. Black American homes were oversampled;

however, sampling weights were used to allot for generalizability to Davidson County, Tennessee. This data set includes information from 1,252 participants who shared personal and family backgrounds, stress and coping experiences, and their health histories over the course of three hours in computer-assisted interviews with interviewers of the same race. The day after, in-home visits were made by clinicians that arrived prior to breakfast to obtain 12-hour urine samples and to collect blood samples. The clinicians also took blood pressure measurements and body measurements (waist, hip, height, weight) and documented prescription medication use. Less than 1% of the sample was missing sociodemographic or biological information (due to challenges obtaining sufficient blood, contamination of specimen, or refusal to clinician visit). Following completion of interviews, American Association for Public Opinion Research rates were used to assess success across screening and interviewing phases (Response Rate 1 = 30.2; Cooperation Rate 1 = 74.2; Refusal Rate 1 = 30.2, Contact Rate 1 = 40.7). The NSAHS and all study procedures were approved by the Vanderbilt University Institutional Review Board and described in detail elsewhere (Turner, Thomas, and Brown 2016). We used the full sample of Black Americans available in the data set, examining 330 Black women and 297 Black men (see Table 1).

Measures

AL scores were developed based on the collection of 10 biomarkers, which include primary mediators and secondary mediators. Primary mediators are the substances that the body releases when responding to stress, whereas secondary mediators are by-products of the actions from primary mediators (Geronimus et al. 2006). Primary mediators include epinephrine, norepinephrine, dehydroepiandrosterone sulfate, and cortisol. Secondary mediators include total cholesterol, high density lipids, glycated hemoglobin, systolic and diastolic blood pressure, and waist-to-hip ratio. Total AL scores were based on a count of these high-risk biomarkers and ranged from 0 to 10, with higher scores indicating greater physiological dysregulation across bodily systems (Geronimus et al. 2006; Thomas Tobin et al. 2019).

Depressive symptoms were evaluated by using the Center for Epidemiologic Studies Depression Scale (CES-D), which includes 20 items (α = .89) such as “you were bothered by things that don’t usually bother you” and “you felt that everything you did was an effort” (Radloff 1977). Items were summed, and higher scores indicate higher depressive symptomatology (range = 0–53).

John Henryism was assessed with a 12-item (α = .72) measure developed and utilized by James et al. (1983, 1992). This measure includes statements such as “I’ve always felt that I could make of my life pretty much what I wanted to make of it” and “I am rarely disappointed by the results of my hard work.” Respondents were asked to indicate how true each statement was for them on a scale ranging from 1 (“completely false”) to 5 (“completely true”). Items were summed so that higher scores indicate higher levels of John Henryism. The scores were then categorized to reflect low, moderate, and high levels of John Henryism. Prior research suggests that a “threshold for dysfunction” is possible when assessing the efficacy of psychosocial resources such as mastery and John Henryism, and although studies indicate that higher levels of psychosocial resources are

beneficial for health, this association may not be linear (Kiecolt et al. 2009). For example, although low levels of John Henryism may not provide individuals with adequate health benefits, consistently high engagement in John Henryism may also result in detrimental health outcomes, particularly among Black Americans (Bennett et al. 2004; James 1994, 2019; James et al. 1983; Kiecolt et al. 2009). Thus, it is possible that moderate levels of John Henryism may be most protective for health and well-being. Given that most research focused on John Henryism has utilized dichotomous measures of low versus high John Henryism, it is unclear whether this threshold of dysfunction also applies to those with moderate John Henryism scores. From a public health perspective, this categorical approach makes identifying at-risk individuals easier because prior research indicates that when assessing John Henryism continuously or only using low/high categorizations, it is possible to miss a threshold effect when examining the impact of John Henryism on health (Kiecolt et al. 2009). To this end, the present study categorized scores based on the 25th and 75th percentiles and coded John Henryism as (1) low John Henryism (reference category), (2) moderate John Henryism, or (3) high John Henryism.

SES was assessed with an index of education, income, and occupational prestige. *Education* was assessed categorically (less than high school, high school/GED, some college, college graduate or higher). Respondents provided information about their *annual household income* (<$20,000; $20,000–$34,999; $35,000–$54,999; $55,000–$74,999; $75,000–$94,999; $95,000+). *Occupational prestige* was measured based on the Nam-Boyd occupational status scale (see Turner et al., 2016). Scores ranged from 0 to 100, with higher scores indicating greater occupational prestige. Education, income, and occupation scores were standardized and summed to create an SES score for each respondent. By weighing education, income, and occupational prestige equally, we created a more comprehensive assessment of SES while reducing the potential for data loss on specific indicators (Brown 2014). Additionally, this approach provided a more comprehensive understanding of an individual's position within a socially stratified society, which is based on his or her occupation of various positions simultaneously across multiple social locations (Erving and Thomas 2018). Prior studies examining the health effects of John Henryism also implemented an SES index due to recognition that there are differences in both the meaning and economic benefits of distinct forms of socioeconomic resources (i.e., education and occupation) for Black Americans compared to other groups (James et al. 1987, 1992). Given this information and our focus on Black Americans, we also implemented an SES index. Based on prior research (Subramanyam et al. 2013), SES scores were categorized based on the 25th and 75th percentiles and coded as (1) low SES, (2) moderate SES, or (3) high SES.

Age was assessed through a continuous measure of how old someone was in years at the time of the interview (M = 43.57, SD = 15.23; range = 22–69). Marital status was assessed through three categories: (1) married (35.29%), (2) never married (39.18%), and (3) other (25.54%). Married individuals were designated as the reference group. Individuals categorized as "other" were divorced, widowed, or separated. Gender was measured dichotomously. Respondents selected female (52.63%) or male (47.37%).

Analytic Strategy

Weighted means and proportions for key covariates were calculated for the full sample and across gender groups (Table 1). Gender and socioeconomic patterns in John Henryism among the sample were also evaluated in supplemental analyses (see Appendix A in the online version of the article). Table 2 shows the relationship between John Henryism and AL using Poisson regression. Model 1 assessed the association between John Henryism and AL, and Model 2 added age, SES, marital status, and gender to the base model. Model 3 tested the interaction between John Henryism and SES, and the interaction between John Henryism and gender was assessed in Model 4. Table 3 shows the relationship between John Henryism and depressive symptoms using negative binomial regression. Model 1 assessed the association between John Henryism and depressive symptoms, and Model 2 added age, SES, marital status, and gender to the base model. Model 3 tested the interaction between John Henryism and SES, and the interaction between John Henryism and gender was assessed in Model 4. For significant interactions, probabilities were predicted to plot interaction results (Figure 1). Joint effects or post hoc tests were conducted as the model was elaborated. STATA Version 16.0 was used to conduct analyses.

RESULTS

Overall, the mean AL score among the sample is 3.38 (SD = 2.57; Table 1). The average depressive symptom score is 14.33, which is slightly below the threshold for clinical significance (e.g., scores of 16+). The sample does not significantly differ for John Henryism scores. More than 40% of participants report moderate levels of John Henryism, 27% report low John Henryism, and approximately 33% report high levels of John Henryism. Most report low or moderate socioeconomic levels, 42.71% and 40.52%, respectively. Women and men in the sample do not differ significantly on most characteristics except depressive symptoms and marital status. Women report significantly higher depressive symptom scores, and a smaller proportion of this group report being married compared to men (Table 1). Additionally, John Henryism levels are consistent across gender and SES groups such that there are no gender and SES differences among the sample for this form of high-effort coping (see Appendix A in the online version of the article).

John Henryism and Allostatic Load

Results indicate that high John Henryism is associated with higher AL scores (Table 2). Findings from Model 1 show that those with moderate John Henryism have AL scores that are 25% higher than individuals with low John Henryism (incidence rate ratio [IRR] = 1.25; 95% confidence interval [CI] = 1.07, 1.46; $p < .05$). Model 2 included John Henryism and additional covariates of age, marital status, SES, and gender. These results mirror those from Model 1 with respect to those moderate in John Henryism. However, in Model 2, those with high levels of John Henryism report AL scores that are 19% higher than individuals who score low in John Henryism, all else equal (IRR = 1.19; 95% CI = 1.00, 1.42; $p < .05$). This finding differs from results in Model 1, in which there was no significant difference in AL scores for those with high John Henryism. A post hoc test confirms that John Henryism remains significantly associated with AL scores in the full model ($p < .05$). These findings

confirm that increased John Henryism is associated with poor physical health outcomes for Black Americans.

Findings also demonstrate that the association between John Henryism and AL scores varies by SES (Table 2, Model 3). A post hoc test confirms that the interaction between John Henryism and SES is significant, $F(4, 254) = 3.30$; $p < .05$. The moderation analysis suggests that for those with low and high SES, moderate John Henryism is associated with elevated AL, whereas AL scores are relatively consistent across John Henryism levels for those with moderate SES (Figure 1). Among those of low SES, as John Henryism levels increase to moderate, this group reports elevated AL. However, at high levels of John Henryism, those of low SES report decreased AL scores. Among those of moderate SES, AL scores remain fairly consistent across John Henryism levels. Among those of high SES, as John Henryism levels increase to moderate, this group reports elevated AL. However, at high levels of John Henryism, those of high SES report decreased AL scores, which is very similar to those of low SES. The finding for those of moderate SES who engage in moderate levels of John Henryism is significant (IRR = .64; 95% CI = .46, .89; $p < .01$). These results suggest that the physical health benefits of John Henryism vary significantly depending on SES level. Moderate levels of John Henryism are associated with lower AL scores among moderate SES individuals relative to those of low or high SES. Taken together, these findings indicate that John Henryism is significantly associated with AL. This relationship varied significantly by SES, but the impact of John Henryism was similar for women and men (Table 2, Model 4). Supplemental analyses (not shown here) were also conducted to identify the specific SES indicators (education, income, and occupational prestige) that contribute to the relationship between John Henryism and AL. Findings demonstrate that the interactive association between John Henryism and SES for AL was primarily driven by differences in education level. Although increases in John Henryism were associated with higher AL among college graduates and those with some college, moderate John Henryism was linked to the highest levels of AL among individuals with high school level and less than high school level education. This highlights the role of education level in shaping the physical health consequences of John Henryism among Black Americans.

John Henryism and Depressive Symptoms

Results indicate that John Henryism is associated with depressive symptom scores (Table 3). Model 1 included John Henryism as the key independent variable. In this model, John Henryism is not significantly associated with depressive symptoms. Model 2 included John Henryism and additional covariates of age, marital status, SES, and gender. Results indicate that individuals who engage in high levels of John Henryism report depressive symptom scores that are 20% lower than individuals who engage in low levels of John Henryism, all else equal (IRR = .80; 95% CI = .65, .99; $p < .05$). Post hoc tests confirm that John Henryism overall is associated with depressive symptom scores, all else equal ($p < .05$). Findings suggest that engaging in high levels of John Henryism is protective for the mental health of Black Americans. Results also indicate that the association between John Henryism and depressive symptoms is similar for women and men and those of varying SES groups (Table 3, Models 3 and 4). Supplemental analyses (not shown here) were conducted to identify the specific SES indicators (education, income, and occupational prestige) that

contribute to the relationship between John Henryism and depressive symptoms. Findings demonstrate that the interaction between John Henryism and educational level and the interaction between John Henryism and income are both significantly associated with depressive symptoms among our sample such that John Henryism is most protective against depressive symptoms for individuals in the highest income and education groups.

DISCUSSION

Despite increased exposure to stressors, lifetime adversity, fewer socioeconomic resources, and compromised physical health, Black Americans often report relatively low rates of major psychiatric disorders (Erving, Thomas, and Frazier 2018; Thomas Tobin et al. 2021). At the same time, high levels of psychological distress (i.e., depressive symptoms) and poor physical health tend to be prevalent among this group (Barnes and Bates 2017; Mouzon et al. 2016; Thomas Tobin 2021; Thomas Tobin et al. 2020). The social stress paradigm has identified coping as a potential factor that may contribute to the unexpected health patterns among Black Americans (Turner et al. 2004); more specifically, the role of culturally relevant coping mechanisms has been highlighted (Assari 2019; Greer 2007; Greer and Brown 2011). Past research has demonstrated that John Henryism is harmful for physical health while simultaneously beneficial for mental health (Bennett et al. 2004; Bonham et al. 2004; James et al. 1983). Although John Henryism is a culturally relevant form of coping, prior literature examining its health significance among Black Americans has not considered its impact on joint physical–mental health risk. Furthermore, although the role of SES has been widely evaluated within John Henryism literature, the influence of gender remains unclear (James 2019). To this end, the goal of the present study was to elucidate the extent to which John Henryism serves as a psychosocial risk or resource for the health of Black Americans. Interestingly, results indicate that this construct may be both a health risk *and* resource, providing new insights into the ways that John Henryism shapes health and underscoring the need to examine both physical and mental health to clarify the distinct health patterns of this group.

There were several notable findings. First, moderate and high levels of John Henryism are associated with increased AL scores, whereas high levels of John Henryism are associated with lower depressive symptoms. This demonstrates that John Henryism is both harmful for physical health yet beneficial for mental health. These results reflect previous work that indicates that John Henryism is linked to poor physical health, such as hypertension and cardiovascular-disease-related outcomes, among Black Americans (James 1994; James et al. 1983) while also being associated with improved mental health status, including lower risk for depression and depressive symptoms (Bennett et al. 2004; Hudson et al. 2016; Kiecolt et al. 2009). Some studies suggest that high-effort coping can be physiologically strenuous, which contributes to increased stress on the body that eventually results in poor physical health (Bennett et al. 2004; James 1994; James et al. 1983) while simultaneously helping individuals to effectively manage stressful experiences (Kiecolt et al. 2009). These findings also relate to the premise that John Henryism developed as a response to addressing challenges related to structural racism (James 1994, 2019). For Black Americans in particular, high levels of John Henryism may provide the fortitude to overcome the daily challenges associated with living in the racialized society of the United States (Hudson et al.

2016; James 1994, 2019; Kiecolt et al. 2009). However, in the process of engaging in high levels of John Henryism as a means to confront these stressors, the success of accomplishing these tasks obscures the physical toll of this persistent hard work, which ultimately leads to poor physical health (Bennett et al. 2004; James 1994). To this end, our findings suggest that for Black Americans, engaging in high John Henryism as a form of psychosocial coping may serve to protect the mental health of this group while simultaneously posing major physical health risks.

Second, the physical health significance of John Henryism varies by SES. Results indicate that for Black Americans with moderate SES, engaging in moderate levels of John Henryism confers significant physical health benefits. Within the present study, we see that those with low SES do experience elevated AL scores as John Henryism levels increase; however, the physical health risk is not significantly different compared to those with low SES who engage in low levels of John Henryism. Among those of moderate SES, AL scores are relatively consistent across levels of John Henryism. However, among Black Americans with high SES, we see that those who engage in low, moderate, and high levels of John Henryism do not report AL scores that are significantly different compared to those with low SES who engage in low levels of John Henryism. The John Henryism Hypothesis posits that engaging in high-effort coping with minimal socioeconomic resources increases the risk of developing hypertension and other chronic physical health conditions (James 1994; James et al. 1983). Based on the JHH, those with high SES should experience more optimal physical health while engaging in increased levels of John Henryism, compared to individuals with low and moderate SES, due to their additional access to increased financial resources. However, we see that low and high SES individuals experience similar AL scores across John Henryism levels, whereas those of moderate SES who engage in moderate levels of John Henryism experience significant physical health benefits. These results indicate that there may be a threshold effect for John Henryism's health impact across SES levels, an important nuance that may enhance the understanding of how John Henryism shapes health among Black Americans.

Findings suggest that high SES Black Americans may face additional challenges and stressors despite their access to increased financial resources, which may negate the health benefits of these resources. Prior studies have demonstrated that Black Americans with high SES report worse physical health status, measured by various indicators (i.e., diabetes, hypertension, self-rated health), compared to white Americans with similar resources (Farmer and Ferraro 2005; Wilson, Thorpe, and LaVeist 2017). Results from the present study underscore the connections between upward mobility among Black Americans and stress exposure. Prior research has demonstrated that it is more difficult for Black Americans to achieve and maintain higher SES and increased wealth compared to white Americans due to multiple barriers facilitated by structural racism (Brown et al. 2016; Darity et al. 2018; Darity and Mason 1998; Farmer and Ferraro 2005; Hudson et al. 2020). More specifically, these barriers, which include fewer opportunities for economic growth and diminished returns related to the acquisition of resources such as education, subsequently contribute to increased stress exposure among Black Americans (Brown et al. 2016; Darity et al. 2018; Darity and Mason 1998; Farmer and Ferraro 2005; Hudson et al. 2020; James 2019). Furthermore, results suggest that those of moderate SES may be significantly

different from those of low and high SES with respect to the health effects associated with John Henryism. These findings are important because they provide additional context for understanding the relationships between stress, culturally relevant coping, and health for Black Americans while emphasizing the importance of evaluating additional socioeconomic contexts. Altogether, engaging in John Henryism at any level is impactful for the physical health of Black Americans; however, the extent to which John Henryism is beneficial for physical health status is heavily tied to one's socioeconomic status.

Lastly, the relationship between John Henryism and mental health does not vary by SES or gender. This finding aligns with previous work focusing on John Henryism and depressive symptoms among Black Americans. For example, prior studies demonstrate that among Black Americans, the relationship between John Henryism and depressive symptoms is consistent across levels of household income and gender (Neighbors et al. 2007). Additionally, Bronder and colleagues (2014) found that as John Henryism levels increase among women, this group's depressive symptomatology decreases. However, that study specifically examined Black women and did not include men. Because the present study included both Black women and Black men, our findings suggest that the mental health benefits conferred by high levels of John Henryism may be applicable to both groups. There have only been a few prior studies to examine whether SES moderates the association between John Henryism and mental health for Black Americans, with most utilizing single indicators of SES rather than an index measure (Neighbors et al. 2007).

Supplemental analyses indicate that the interaction between John Henryism and educational level and the interaction between John Henryism and income are significantly associated with depressive symptoms among our sample. These supplemental findings demonstrate the need to evaluate multiple SES indicators to gain a better understanding of how various forms of SES differentially shape the mental health effects of John Henryism, a key consideration raised by Subramanyam and colleagues (2013) for physical health. Additionally, a key contribution of the present study is that by using an SES index, our analyses suggest that the mental health benefits of John Henryism may be shared by Black women and men of varying SES levels. Future work should continue to evaluate these mechanisms to determine how different SES dimensions influence the link between John Henryism and mental health among Black Americans.

CONCLUSION

The conclusions of this study should be considered within the context of several limitations. First, because this study utilized cross-sectional data, we cannot make arguments about causality or the temporal ordering of the relationships examined. Future work exploring the relationship between John Henryism and health among Black Americans would benefit from the use of longitudinal data that assess outcomes at multiple time points. Second, although the NSAHS (2011–2014) is a suitable data set for our research questions due to its socioeconomically diverse sample of Black Americans, these data are limited to a regional sample from Tennessee. As such, this sample is not representative of all Black Americans. Forthcoming work should explore these questions within a nationally representative data set. Moreover, the consideration of additional contexts and stress exposure would further clarify

the association between John Henryism and AL and depressive symptoms among Black Americans.

Despite these limitations, the present study provides several significant contributions. Overall, our study sought to answer the question of whether John Henryism is a health risk or resource, and findings suggest that John Henryism may be protective or harmful depending on one's SES and whether physical or mental health is examined. Our work extends prior research on the ways in which John Henryism shapes health among Black Americans because it is the first study to assess the associations between John Henryism, depressive symptoms, and AL among Black adult women and men. Through the examination of AL, this study sheds new light on John Henryism's broader influence on the physical health of Black Americans. Because AL is a comprehensive measure of health that captures preclinical physiological dysregulation, this research can be used to further aid in understanding the ways in which chronic stress and subsequent high-effort coping facilitate poor health outcomes among this group. Moreover, by examining both the physical and mental health influences of John Henryism, our study has aided in clarifying the role of culturally relevant psychosocial coping mechanisms in shaping physiological outcomes among Black Americans. Furthermore, the present study clarified that John Henryism does not function the same across subgroups of Black Americans. Our results support prior research on the JHH but add additional nuance to expected patterns, demonstrating that the physical health impact of John Henryism is distinct among moderate SES individuals. This is notable given that research has typically focused on low or high SES individuals. Moreover, findings from the present study demonstrate that the relationship between John Henryism and depressive symptoms among Black Americans is not conditional on SES or gender. This is a key contribution because few studies assessing the impact of John Henryism on mental health among Black Americans have considered the roles of both SES and gender.

The present study also has implications for the social stress paradigm and the understanding of coping and health among Black Americans. Whereas the SSP posits that socially disadvantaged groups will experience poor physical and mental health due to increased exposure to stressors, fewer financial resources, and limited coping resources (Barnes and Bates 2017; Pearlin et al. 1981; Turner 2013; Wilson 2009), these expectations are not always reflected in Black Americans' health patterns (Barnes and Bates 2017; Thomas Tobin 2021). The SSP argues that coping resources have the potential to diminish the adverse health effects of social stress (Turner 2013; Turner et al. 2004), but scholars have only more recently recognized that Black Americans may have access to culturally relevant coping resources such as John Henryism, which may buffer the adverse impact of stress on health (Assari 2019; Greer and Brown 2011).

Although research on coping has historically focused on other resources such as "grit," it should be noted that John Henryism is distinct from grit and other related constructs. Whereas John Henryism is defined as a persistent, high-effort, active coping style that is used to address psychosocial and environmental stressors (James 1994; James et al. 1983), grit has been characterized as "perseverance and passion for long-term goals" (Duckworth et al. 2007:1087). Despite the shared element of perseverance, there are

notable differences between John Henryism and grit. For instance, although it may be utilized over extended periods of time, John Henryism is not specific to long-term goals. An individual can theoretically engage in John Henryism to get through the day or the week, and John Henryism does not necessarily involve passion for achieving goals. Rather, there is a dedication to succeed and address environmental stressors with individual action (James 2019; James et al. 1983). Specifically, there is a sociocultural underpinning of John Henryism that cannot be ascribed to grit. John Henryism's origins reflect the challenges faced by Black Americans to overcome difficulties associated with structural racism, such as socioeconomic oppression (James 1994, 2019). Thus, our findings underscore that John Henryism is in fact different from other psychosocial resources within the SSP framework given that this form of coping can be both a health resource and a risk for Black Americans.

Finally, the present research adds to a growing body of evidence demonstrating the paradoxical health patterns among Black Americans. For instance, the dual risk-resource characteristics of John Henryism have been reflected in other coping studies on Black Americans, including those assessing the environmental affordances (EA) model. The EA model, developed by the late Dr. James S. Jackson and Knight and Rafferty (2010), is a related framework that may clarify and contextualize these findings. One of the EA model's main arguments is that health-related self-regulatory coping strategies, such as substance use and consumption of unhealthy foods, although psychologically protective, are key contributing factors to poor physical health among Black Americans (Jackson et al. 2010; Mezuk et al. 2013). Relatedly, our findings demonstrate that John Henryism also contributes to poor physical health outcomes while concurrently promoting positive mental health among this group. Taken together, this area of research suggests that Black Americans may engage in a wide range of coping strategies that are distinct to this population. Although the SSP is useful for understanding how stress and coping processes shape health within the general population, there is a need to more intentionally integrate culturally relevant forms of coping into this perspective to clarify unexpected health patterns and improve outcomes among this group. We encourage additional scholarship focused on this topic because it will aid in further clarifying the role of psychosocial factors in shaping the health profiles of Black Americans.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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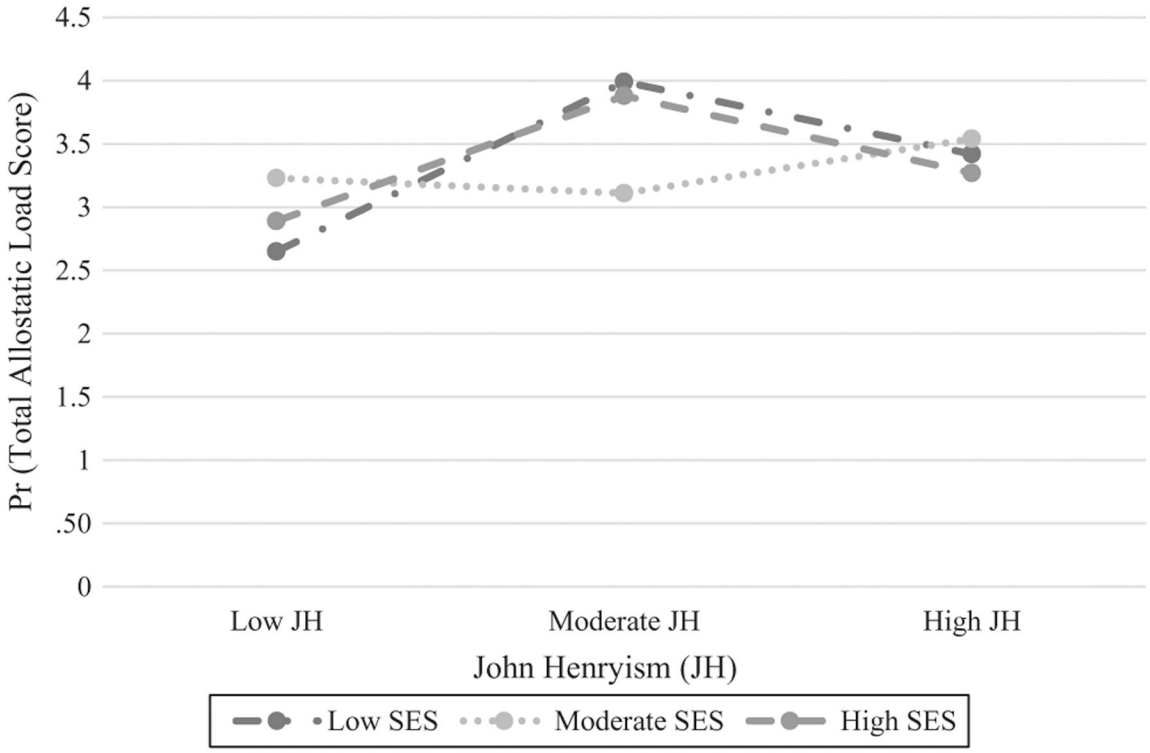

Figure 1.

Socioeconomic Status Moderates the Association between John Henryism and Allostatic Load among Black Americans.

Note: $N = 627$; $F(4, 254) = 3.30$; $p < .05$; Pr=predicted probability. Data from the Nashville Stress and Health Study, 2011–2014.

Table 1.

Sample Characteristics by Gender among Black Americans with Data from the Nashville Stress and Health Study, 2011–2014.

	All (*N* = 627)		Women (*n* = 330)		Men (*n* = 297)		
	Mean or %	*SD*	Mean or %	*SD*	Mean or %	*SD*	*p* Value
Allostatic load (0–10)[a]	3.38	2.57	3.36	2.51	3.41	2.65	.72
Depressive symptoms (CES-D; 0–49)[a]	14.32	12.58	16.02	12.94	12.27	11.44	< .01
JH (1–3)[a]							
Low JH (ref.)	26.97		25.11		29.23		.77
Moderate JH	40.43		42.06		38.45		
High JH	32.60		32.83		32.32		
Age (22–69)[a]	43.57	15.23	43.77	14.75	43.33	15.81	.73
SES[b] (1–3)[a]							
Low SES (ref.)	42.71		39.39		46.75		.44
Moderate SES	40.52		43.95		36.34		
High SES	16.78		16.67		16.91		
Marital status (1–3)[a]							
Married (ref.)	35.29		26.20		46.35		< .05
Never married	39.18		44.18		33.09		
Other	25.54		29.62		20.56		

Note: Ref. = reference category; CES-D = Center for Epidemiologic Studies Depression Scale; JH = John Henryism; SES = socioeconomic status. SD = standard deviation.

[a]Standardized.

[b]Range; weighted means and percentages reported.

Table 2.

Association between John Henryism and Allostatic Load among Black Americans with Data from the Nashville Stress and Health Study, 2011–2014.

	Model 1	95% CI	Model 2	95% CI	Model 3	95% CI	Model 4	95% CI
JH								
Low JH (Ref.)								
Moderate JH	1.25**	1.07, 1.46	1.25**	1.07, 1.45	1.50**	1.18, 1.92	1.14	.96, 1.37
High JH	1.15	.98, 1.34	1.19*	1.00, 1.42	1.29	.96, 1.74	1.01	.82, 1.24
JH all categories (*p* value)	.02*		.01*					
JH × SES								
Low JH × Low SES (Ref.)								
Moderate JH × Moderate SES					.64**	.46, .89		
Moderate JH × High SES					.89	.63, 1.27		
High JH × Moderate SES					.85	.60, 1.21		
High JH × High SES					.88	.62, 1.24		
JH × Gender								
Low JH × Women (Ref.)								
Moderate JH × Men							1.20	.87, 1.65
High JH × Men							1.43	.90, 2.29
Age			1.01**	1.00, 1.02	1.01**	1.01, 1.02	1.01**	1.00, 1.02
Gender								
Women (Ref.)								
Men			1.04	.95, 1.14	1.04	.95, 1.14	.85	.63, 1.15
SES								
Low SES (Ref.)								
Moderate SES			.94	.82, 1.07	1.22	0.88, 1.68	.93	.81, 1.06
High SES			.99	.79, 1.23	1.09	0.79, 1.50	.97	.79, 1.20
Marital status								
Married (Ref.)								
Never married			1.00	.92, 1.09	1.02	.93, 1.12	.99	.90, 1.08
Other			1.18**	1.08, 1.30	1.17**	1.06, 1.30	1.16**	1.07, 1.27

	Model 1	95% CI	Model 2	95% CI	Model 3	95% CI	Model 4	95% CI
Intercept	2.95***	2.58, 3.36	1.72*	1.09, 2.71	1.48	0.84, 2.59	1.90**	1.24, 2.91

Note: Incidence rate ratios are reported. CI = confidence interval; JH = John Henryism; Ref. = reference category; SES = socioeconomic status.

*$p < .05$,

**$p < .01$,

***$p < .001$ (two-tailed).

Table 3.

Association between John Henryism and Depressive Symptoms among Black Americans with Data from the Nashville Stress and Health Study, 2011–2014.

	Model 1	95% CI	Model 2	95% CI	Model 3	95% CI	Model 4	95% CI
JH								
Low JH (Ref.)								
Moderate JH	.97	.78, 1.20	.95	.78, 1.16	1.14	.95, 1.36	1.03	.78, 1.37
High JH	.83	.66, 1.04	.80*	.65, .99	.95	.73, 1.23	.74	.54, 1.02
JH all categories (*p* value)	.14		.04*					
JH × SES								
Low JH × Low SES (Ref.)								
Moderate JH × Moderate SES					.68	.42, 1.09		
Moderate JH × High SES					.86	.61, 1.23		
High JH × Moderate SES					.77	.50, 1.20		
High JH × High SES					.63	.37, 1.08		
JH × Gender								
Low JH × Women (Ref.)								
Moderate JH × Men							.83	.56, 1.21
High JH × Men							1.20	.78, 1.86
Age			.98	.98, .99	.98***	.98, .99	.98***	.98, .99
Gender								
Women (Ref.)								
Men			.77**	.64, .93	.77*	.64, .94	.78	.58, 1.04
SES								
Low SES (Ref.)								
Moderate SES			.83	.67, 1.02	1.06	.84, 1.35	.81	.66, 1.01
High SES			.67**	.52, .88	.84	.60, 1.17	.67**	.51, .88
Marital status								
Married (Ref.)								
Never married			1.05	.90, 1.24	1.11	.96, 1.27	1.05	.87, 1.25
Other			1.16	.95, 1.41	1.16	.95, 1.42	1.15	.94, 1.39

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	Model 1	95% CI	Model 2	95% CI	Model 3	95% CI	Model 4	95% CI
Intercept	15.40***	13.59, 17.46	38.80***	25.22, 59.70	32.32***	22.98, 45.45	38.53***	21.77, 68.19

Note: Incidence rate ratios are reported. CI = confidence interval; JH = John Henryism; Ref. = reference category; SES = socioeconomic status.

* $p < .05$,

** $p < .01$,

*** $p < .001$ (two-tailed).