Goal-Striving Stress and the Mental Health of College-Educated Black American Men: The Protective Effects of System-Blame

Sherrill L. Sellers Miami University of Ohio Harold W. Neighbors

University of Michigan

Vence L. Bonham Michigan State University

The present study examined the relationship between goal-striving stress and well-being in a survey of 399 college-educated Black American men who were members of a Black fraternal organization. Regression analyses revealed that goal-striving stress was associated with decreased psychological well-being, controlling for demographics and various psychosocial factors. When asked to explain their failure to reach life goals, half of the men attributed setbacks to racial discrimination. The association of goal-striving stress with diminished well-being was stronger among those who did not attribute setbacks to race than among those who did. These findings suggest that even with material success, Black men face blocked opportunities that could be consequential to their well-being.

he unique social and psychological circumstances that affect the mental health of Black men in America are not well understood. When considering the accomplishments and triumphs of the 21st century, many Black American men believe that "the American dream" is indeed attainable (Harrison, 1999; Obama, 2006; Pew Research Center, 2007). Despite the increased optimism that has resulted from the progress Black men have made, substantial obstacles remain (Feagin & McKinney, 2003; Ogletree, 2010). Many Black American men perceive continued prejudice, discrimination, and inequality of opportunity (PEW, 2007; Williams, 2003a). The American dream competes with the realities of racial inequities. As a result of the tensions between opportunities and constraints, it is commonplace for Black American men to experience discrepancies between their aspirations and their achievements, a state described as goal-striving stress (Parker & Kleiner, 1966). This study examined goal-striving stress among a sample of

¹In this article, Black and African American are used interchangeably. See Niven and Zilber (2000) for an interesting examination of racial labels.

Vence Bonham is now at the National Human Genome Research Institute, National Institutes of Health. The opinions expressed in this article are the author's own and do not reflect the views of the National Human Genome Research Institute, National Institutes of Health, or the Department of Health and Human Services.

Correspondence concerning this article should be addressed to Sherrill L. Sellers, Miami University, 210 Spring St., Oxford, OH 45056. Electronic mail may be sent to slsellers@muohio.edu.

college-educated Black American men. Using a stress-coping theoretical framework, the study considered associations between mental health, goal-striving stress, and two coping resources, John Henryism and self-blame or system-blame.

Goal-Striving as a Chronic Stressor

The major components of the stress paradigm include stressors (e.g., financial worries, discrimination, unemployment), moderating resources (e.g., social support), and mental and physical health (Dressler, Oths, & Gravlee, 2005; Schwartz & Meyera, 2010; Thoits, 1995). Goal-striving stress, defined as the discrepancy between aspirations and achievement, has the characteristics of a chronic stressor (Wheaton, 1999). It is insidious, often relentless, and continuous in the sense that it is embedded in daily roles, often fueling daily activities. In addition, it is fairly open-ended and protracted. Individuals caught in the struggle to achieve are often unwilling or unable to withdraw from a particular life goal because doing so typically means "giving up" on a long-held dream (Sellers & Neighbors, 2008).

Goal-striving stress captures an important sociopsychological component of the stress associated with the quest for upward social mobility (Parker & Kleiner, 1966). As with other chronic stressors, goal-striving stress has been associated with poor mental health outcomes (Neighbors, Sellers, Zhang, & Jackson, 2011; Parker & Kleiner, 1966; Sellers & Neighbors, 2008). Sellers and Neighbors (2008) found significant inverse relationships of goal-striving stress with happiness, life satisfaction, and self-esteem, and a positive relationship with psychological distress.

They also found that the impact of goal-striving stress on life happiness and life satisfaction was stronger for Black Americans living above the poverty threshold than for those living below it. Thus, despite having done well in life, relatively successful Black Americans experienced lower levels of overall quality of life in the face of high goal-striving stress. Sellers and Neighbors suggested that these findings point to the complex interaction between the psychological meaning of mobility striving and mental health within the context of a race-conscious society.

Historically, goal-striving stress has been conceptualized within a racialized context (Parker & Kleiner, 1966). Parker and Kleiner argued that, although goal-striving stress was not unique to Black Americans, it may be especially problematic for "the Negro who battles for equality and status position in a social system that is relatively closed to him [sic]" (Parker & Kleiner, 1966, pp. 3–4; also see Kleiner & Parker, 1965, p. 84). Recent studies have documented the pervasiveness of racial discrimination in the lives of most Black Americans (Gee, Ryan, Laflamme, & Holt, 2006; Mays, Cochran, & Barnes, 2007; Williams, Neighbors, & Jackson, 2003).

Perceptions of Discrimination

A growing body of literature focuses specifically on perceptions of discrimination² and examines the degree to which racial and gender groups (e.g., Black men, Black women, White men, and White women) perceive specific types of personal discrimination and their mental and physical health consequences. For example, Broman, Mavaddat, and Hsu (2000) found that compared to Black women, Black men were more likely to perceive themselves as facing racial discrimination in hiring and in encounters with the police. However, Black men and women were equally as likely to perceive general workplace discrimination or mistreatment when shopping in public. Rodriguez (2008) found that being Black and male heightens the likelihood of perceiving discrimination. Black men were more likely than Black women, White men, and White women to perceive police harassment or mistrust and were 16-77 times as likely to perceive being treated as if they are inferior. Black men were much more likely than others to perceive that people treat them with less respect, or that they receive poorer service, and that people act as if they are not as smart or as good as others (Rodriguez, 2008).

It is reasonable to assume that racial discrimination would play an important role in striving efforts of Black Americans. Racial discrimination may impede a person's ability to achieve his or her goals. Some data support these claims. For example, college-educated Black men are three times as likely to be unemployed as their White counterparts. Over a lifetime of work, college-educated Black men will earn only approximately 70% of what a college-educated White man will earn (U.S. Department of Labor, 2009). These disparities are not unique to middle-class

Black men. Overall, Black men are disproportionately represented in lower income jobs (National Urban League, 2007). Figures show that 9.5% of Black men are unemployed compared to 4% of White men and three times as many Black men live in poverty as compared to White men. The median income for Black men is \$34,443 compared to \$46,807 for White men (Xanthos, Treadwell, & Holden, 2010).

There is ample evidence to suggest that racial discrimination has adverse affects on the mental health of Black Americans (Paradies, 2006; Stuber, Galea, Ahern, Blaney, & Fuller, 2003; Swim & Thomas, 2006; Williams et al., 2003). Experiences of racial discrimination have been associated with several negative psychological outcomes, including depression (Karlsen & Nazroo, 2002; Siefert, Bowman, Heflin, Danziger, & Williams, 2000), psychological distress (Gee, 2002; Jackson et al., 1996; Pak, Dion, & Dion, 1991), and decreased self-esteem (Diaz, Ayala, Bein, Henne, & Marin, 2001; Verkuyten, 1998). In a review of 53 studies, Williams et al. (2003) consistently found a positive association between discrimination and mental health. While this finding is quite robust, the authors noted the importance of situating racial discrimination within a stress-coping framework.

Consistent with this line of inquiry, Taylor and Turner (2002), examining the relationship between discrimination and depression in a sample of high school students, found that Black Americans reported more exposure to discrimination. However, when they controlled for other social stressors, discrimination did not predict any symptoms of depression. They concluded that general life stress might play a larger role in psychological well-being than discrimination or race-related stress. Others have also suggested that the influence of discrimination on mental health might be affected by variables such as general life stress, gender, and socioeconomic status (D'Anna, Ponce, & Siegel, 2010; Jackson, Hogue, & Phillips, 2005; Pieterse & Carter, 2007). For example, Pieterse and Carter (2007), in a study of psychological health of Black men, found that racism-related stress had greater impact on middle-class men than workingclass Black men. They noted that "simply having access to greater resources and social opportunity might not necessarily protect Black men from the ongoing experience of invisibility or the negative stereotypes by which Black men are portrayed"

Discrimination and other social stressors are therefore important predictors in an analysis of associations between goal-striving stress and mental health among college-educated Black men. We predict that goal-striving stress is related to mental health after controlling for discrimination. Using the stress-coping framework, we also consider race-related coping resources that may buffer the relationship between goal-striving stress and mental health. We examine two coping resources—the attributional coping style known as self- or system-blame and John Henryism, prolonged high-effort coping with chronic psychosocial stressors in the belief that determination and hard work will lead to success.

Attributional Coping Style: Self- or System-Blame

Attributional style refers to the consistent manner in which a person attributes causal explanations to events that occur in

²There has been some debate about the appropriate label for racial discrimination. We follow the lead of Williams and Mohammed (2009), who use the terms discrimination, perceived discrimination, interpersonal discrimination, and self-reported discrimination interchangeably (pp. 21–22).

one's life (Abramson, Metalsky, & Alloy, 1989). Attributional styles are usually described across three dimensions: an internal-external locus dimension, a stability-instability dimension, and a specific-global dimension. An internal explanation points to something about the self (e.g., "It's me") and makes loss of self-esteem following a negative event more likely. A stable explanation refers to long-lasting causes (e.g., "It's the way the world is") and is apt to produce chronic difficulties in the wake of negative events. A global explanation specifies a pervasive determinant (e.g., "It's going to undermine everything I do") and increases the likelihood that negative events will produce widespread problems (Abramson et al., 1989; Peterson & Seligman, 1987). Attribution theory suggests that individuals who offer internal, stable, and global explanations for negative events are at increased risk for morbidity and mortality (Abramson, Seligman, & Teasdale, 1978; Peterson & Seligman, 1987; Seligman, 1986).

In an analysis of data from the National Survey of Black Americans, LaVeist, Sellers & Neighbors (2001) tested the hypothesis that an external attributional orientation (i.e., system-blame) as opposed to an internal attributional orientation (i.e., self-blame) would be protective of physical health when individuals were exposed to racism. They found that Black Americans with a system-blaming orientation who reported experiencing racism were more likely to survive the 13-year follow-up period, compared to self-blamers who did not perceive themselves to have been exposed to racism. LaVeist and colleagues concluded that the attribution of negative events to external factors, such as systemic societal racism, rather than to individual characteristics, may be adaptive and protective of health status for Black Americans.

The understanding that race is an important consideration in all achievement situations is a common belief among Black Americans. In fact, for Black Americans, one's race is closely tied to one's notion of personal competence (Neighbors, Jackson, Broman, & Thompson, 1996). This heightens the salience of the relative importance of race as opposed to personal capability as a significant contributing factor to success. Black Americans have typically offered at least two explanations for their successes and failures: self-blame or system-blame (Neighbors et al., 1996). Self-blame emphasizes internal factors and focuses on personal effort in achieving life goals. System-blame emphasizes external factors and focuses on societal barriers to achievement, such as racism and discrimination.

Typically, Black Americans are never quite sure whether the outcomes of their mobility striving are because of personal capabilities or some structural aspect of the U.S. political economy (Neighbors et al., 1996). Little research has focused on how Black Americans explain why they were unable to accomplish their original goals. It is especially important to explore the degree to which race is mentioned as a significant explanation for any discrepancies between aspirations and achievements. It is possible that self-blame imparts a feeling of control over a situation that is missing if external forces were blamed, which may be psychologically beneficial. Alternatively, system-blame may in fact be protective. Attributing negative life outcomes to external factors can be emotionally beneficial among groups for whom such explanations are plausible (McLeod & Nonnemaker, 1999). It may be that, by externaliz-

ing blame, Black Americans who attribute setbacks to race-based barriers are thus protected psychologically (Crocker & Major, 1989).

While a number of studies have found associations between attributional styles and psychological distress, depression, anxiety, and other measures of mental well-being (Abramson et al., 2002; Gladstone & Kaslow, 1995; Luten, Ralph, & Mineka, 1997), and several researchers have proposed attributional style as a way of understanding the health and well-being of Black Americans (Jackson et al., 1996; Neighbors et al., 1996), to date, there are few empirical studies that examine associations between racial attribution and mental health. No study examines racial attribution within the context of goal-striving stress (Jackson, Knight, & Rafferty, 2010).

Based on the aforementioned literature, we expect that participants who attribute mobility setbacks to race-based obstacles will see mental health benefits. We hypothesize that racial attribution will moderate the relationship between goal-striving stress and mental health. Specifically, as goal-striving stress increases, those who attribute their failure to race (i.e., systemblame) will exhibit better mental health than those who do not.

John Henryism

One way Black Americans have attempted to increase the likelihood of turning dreams into reality is through a belief in the expected payoff of hard work and persistent effort as characterized by the concept of John Henryism (James, Strogatz, Wong, & Ramsey, 1987). John Henryism is the propensity to respond actively to stressors in the belief that determination and hard work will lead to success (James, 1994; James, Hartnett, & Kalsbeek, 1983). The John Henryism hypothesis proposes that prolonged high-effort coping with chronic psychosocial stressors may be associated with elevated risk for negative health outcomes among those without sufficient socioeconomic resources. Consistent with this hypothesis, James, Keenan, Strogatz, Browning, and Garrett (1992) found that there was little variation in hypertension by socioeconomic status (SES) among those with low John Henryism. However, at high John Henryism, prevalence of hypertension was significantly higher among low SES respondents. The findings suggest that the combination of high stress and high-effort coping accounted for higher rates of hypertension among low SES participants. More recent studies suggest complex associations between John Henryism, SES, and health (Bonham, Sellers, & Neighbors, 2004). These studies suggest that (a) the hypothesis does not hold for higher SES persons (Bonham et al., 2004), and (b) John Henryism may have positive effects on mental health (Kiecolt, Hughes, & Keith,

John Henryism, while framed in the language of ambition, perseverance, and achievement, is a double-edged sword. That is, depending on the individual's socioeconomic standing and his or her socioenvironmental demands, John Henryism can be either good or bad for one's health and well-being (Bonham et al., 2004; Neighbors, Njai, and Jackson, 2007). On the one hand, John Henryism can diminish the physical health of those of low SES because the environmental demands and the continual efforts to cope with psychosocial stressors exceed personal resources (the John Henryism hypothesis (James, 1994; James

et al., 1983). On the other hand, for middle- and upper income individuals, John Henryism seems to have the opposite impact. Bonham et al. (2004) found that the high-effort coping was adaptive for high SES college-educated Black men. Haritatos, Mahalingam, and James (2007) reported similar findings for high SES Asian immigrants.

While physical health was the focus of the above studies, the relationship between John Henryism and mental health has not been as thoroughly researched (Neighbors, Hudson, & Bullard, in press). In one of the few studies, Neighbors and colleagues found that John Henryism was associated with decreased depressive symptoms for Whites, but not African Americans or Caribbean Blacks (Neighbors, Njai, & Jackson, 2007). Kiecolt et al. (2009) did not find any racial differences in associations between John Henryism and three mental health outcomes. More important for this study, Kiecolt et al. found that John Henryism was equally beneficial at all levels of socioeconomic status. Thus, contrary to the John Henryism hypothesis, high John Henryism was not detrimental to the mental health of low SES individuals.

Associations between John Henryism and goal-striving stress are not clear. Theoretically, it appears that both goal-striving stress and John Henryism measure important, but different, aspects of the quest for advancement. Goal-striving stress is recognition of the problem of blocked opportunity, while John Henryism is employed as a means of solving the problem. Black Americans with a strong John Henryism orientation may draw on this coping strategy to help overcome obstacles to advancement. Consistent with Kiecolt et al. (2009), we hypothesized that John Henryism would be positively associated with mental health. We further hypothesized that John Henryism would moderate associations between goal-striving stress and mental health, such that respondents with high John Henryism and high goal-striving stress would report better mental health. In summary, this article uses a stress-coping framework to explore the relationship between goal-striving stress and mental health in a sample of college-educated Black American men. Consistent with prior research (Parker & Kleiner, 1966; Sellers & Neighbors, 2008), we predict goal-striving stress would be significantly and inversely related to mental health. We also predicted that this relationship would remain after adjusting statistically for demographic variables; other stressors (e.g., racial discrimination and stressful life events); and two coping resources, racial attribution and John Henryism. Specifically, we tested three hypotheses: (a) Goal-striving stress will be inversely related to mental health, (b) System-blame attribution will moderate the relationship between goal-striving stress and mental health, such that as goal-striving stress increases, individuals who attribute their setbacks to racism will report better mental health than those who blame themselves for not reaching their goals, and (c) John Henryism will moderate the relationship between goal-striving stress and mental health, such that as goal-striving stress increases, individuals with high John Henryism scores will report better mental health than those with lower John Henryism scores.

Method

Project Uncovering and Promoting Life-saving Information For Tomorrow (UPLIFT) is a collaborative Black American men's health services research project between a historically Black fraternal organization and the research team. The study is a cross-sectional survey of college-educated Black American men and was conducted as a series of computer-assisted telephone interviews (CATI) by Michigan State University's Institute for Public Policy and Social Research, Office of Survey Research

Data were collected in 2000. The study sample consisted of Black men who were members of a historically black national fraternal organization. This international fraternity has more than 130,000 members and more than 550 chapters in 44 states, the District of Columbia, and abroad. Only those members (5,687) residing in Illinois, Indiana, Michigan, Minnesota, and Wisconsin that had reported a telephone number (2,076) to the fraternal organization (about 35%) were included in the sample population. Table 1 shows the numbers of members within each of the states, the number with phone numbers listed, the number of men randomly selected from among those with phones, and the number of completed interviews for each of the five states.

Each of the states was to be sampled at approximately the same rate; however, two states (Minnesota and Wisconsin) had very few members residing in them, and Indiana had an appreciably lower telephone number availability rate than the other four states. Since the intent was to complete sufficient numbers of interviews to result in approximately the same margins of sampling error for the samples from each state, we oversampled Indiana and included all available members with phone numbers from Minnesota and Wisconsin.

Those selected were sent an advance letter on project letterhead and signed by the principal investigator who identified himself as a member of the same fraternity. The letter was intended to inform the men of the study, its purposes, and its length, while encouraging them to participate.

A total of 399 interviews was completed. The typical interview took 30–35 min to complete. Assuming that those who had phone numbers available in the database did not differ systematically from those without phone numbers available, the overall margin of sampling error for the set of 399 completed interviews is $\pm 4.7\%$. The margin of sampling error for the completed interviews with men in each state is given in Table 2.

Based on the Standard Definitions RR4 and REF2 of the American Association for Public Opinion Research (AAPOR)

Table 1. Population and Sample Characteristics by State

State	Members	W/Phones	Phone Rate (%)	Sampled	Completed IW	
Illinois	2,049	819	40.0	479	122	
Indiana	1,065	265	24.9	163	56	
Michigan	2,095	807	38.5	444	147	
Minnesota	180	70	38.9	83*	26	
Wisconsin	298	115	38.6	126*	48	
Total	5,687	2,076		1,295	399	

Note. *Some men without reported phones were also selected for special phone number lookups because of the relatively small numbers of men in these states.

Table 2. Margin of Sampling Error for the Completed Interviews

	All members (%)	Members with phones (%)
Illinois	±8.6	±8.2
Indiana	± 12.9	± 11.7
Michigan	± 7.8	± 7.3
Minnesota	± 18.1	± 15.5
Wisconsin	± 13.1	± 10.9

strategy for calculating response rates, the total response rate for the survey was 78.7% with a refusal rate of 8.2% (http://www.aapor.org/uploads/Standard_Definitions_04_08_Final.pdf). There was, however, some variation in these rates from state to state with response rates highest for Illinois (81.2%) and lowest for Michigan (75.4%).

Measures

Outcome. Mental health was measured using the Mental Health Component (MHC) Summary of the Medical Outcomes Study Short Form 12 (SF-12; Ware, Kosinski, & Keller, 1998). The SF-12 is a shortened version of the Medical Outcomes Study Short Form 36, a commonly used health status survey instrument developed as a generic measure of subjective health status. The SF-12 was designed to be a reliable measure of health-related quality of life for both clinical and populationbased studies (Burdine, Felix, Able, Wiltraut, & Musselman, 2000). Questions focus on several dimensions including social functioning, general health, physical functioning, bodily pain, and mental health (Gandek et al., 1998). The SF-12 can be divided into two sections: The Physical Health Component and the MHC12. The psychometric properties of these widely used scales have been evaluated; they have good reliability and validity and have been used with variety of racial and ethnic populations, including African Americans (Borrell, Kiefe, Williams, Diex-Roux, & Gordon-Larsen, 2006; Gandek et al., 1998; Ware, Kosinski, & Keller, 1996). Questions for the MHC included the following: (a) How much of the time during the last 4 weeks have you felt calm and peaceful? (b) Did you have a lot of energy? (c) Have you felt downhearted and blue? Responses ranged from all of the time to none of the time. A scoring algorithm developed by Ware and colleagues was used to compute a MHC12 score for each respondent (Ware et al., 1998). The MHC12 is a continuous measure, normed to a mean of 50 and a standard deviation of 10. Higher scores have been associated with better mental health, and low scores have been associated with clinical depression and diminished mental well-being (Gee et al., 2006).

Predictors. Control variables included age, education, income, employment status, and marital status. Age was measured using the respondent's date of birth. Education, reflecting the high level of achievement among the sample, was dummy coded 1 for completing a master's or Ph.D. and 0 for other educational levels (e.g., bachelor's degree). Income was based on self-report of annual household income from all sources.

Employment status was dummy coded 1 for employed fulltime and 0 for other statuses (e.g., retired). Marital status contrasted those who were married (1) with those who were not (0; e.g., never married and formerly married).

Predictors included goal-striving stress, racial discrimination, self- or system-blame, and John Henryism. Consistent with Taylor and Turner (2002), stressful life events were also introduced into the model.

Goal-striving stress consisted of three items measuring the discrepancy between aspirations and achievement, weighted by the level of disappointment associated with failing to achieve life goals. Respondents were asked to imagine a ladder with 10 steps, "where step 10 represents your best way of life and step 1 represents your worst way of life." Aspirations were measured by asking the step number that best described where the respondent would like to be the following year. Achievement was measured by asking for the step number that best described where the respondent was at the current time. Importance of the goal was measured by asking respondents, on a 4-point scale, how disappointed they would be if they could never reach the aspired step. The equation for goal-striving stress is:

Goal-striving stress = (aspirations - achievement)
* importance of goal.

The racial discrimination score was constructed using Williams's discrimination stress scale (Williams et al., 2003), a scale that attempts to capture aspects of interpersonal discrimination that are chronic or episodic but generally minor (Williams & Mohammed, 2009). Respondents were asked about their perceptions of outward treatment by others. Specific questions were as follows: (a) Do you think you have ever been unfairly fired or denied a promotion? (b) Do you think you have ever been unfairly not hired for a job? (c) Do you think you have ever been unfairly stopped, searched, questioned, physically threatened, or abused by the police? (d) Do you think you have ever been unfairly discouraged by a teacher or advisor from continuing your education? (e) Do you think you have been unfairly prevented from moving into a neighborhood because the landlord or a realtor refused to rent or sell you a house or apartment? (f) Have you ever moved into a neighborhood where neighbors made life difficult for you or your family? After each question, respondents were asked their opinion of the main reason for the maltreatment within 12 response categories: religion, gender, race/ethnicity, age, income level/social class, and other. Responses were scored 1 for race and 0 for all others. The racial stress measure was constructed by summing across the items; scores ranged from 0 to 6.

Self-blame or system-blame was measured using a single item. Respondents were asked, "Which of the following things do you feel might keep you from getting to [the step where you would like to be]?" Respondents who responded yes to "your race or the fact that you are Black" received a score of 1; those who responded no received a score of 0.

The John Henryism scale was constructed by summing scores on 12 items. Respondents were asked to assess a series of statements such as: (a) I've always felt that I could make my life pretty much what I wanted to make of it, (b) I like doing things

that other people thought could not be done, and (c) When things don't go the way I want them to, that just makes me work even harder. The response scale was *completely true*, *somewhat true*, *somewhat false*, or *completely false*, with affirmative answers indicting high John Henryism. Total scores range from a low of 12 to a high of 60. Cronbach's alpha for internal consistency was 0.69. Consistent with prior research, and because the scores tend to be high (Bennett et al., 2004), scores on John Henryism were dichotomized using a median split. Respondents above the median of 51.25 were coded 1; scores below the median were coded 0.

Stressful life events were measured using a standard life event scale similar to the one used by Taylor and Turner (2002). Respondents were asked whether any of 14 different events had happened in the last 12 months. The events included serious illness or injury, serious financial problems, death of someone close, and being victim of a serious physical attack or assault. Respondents received a score of 1 for each affirmative response; 0 if the event did not occur. Responses were summed. Minimum score was 0 and maximum score was 8, mean score was 2.5, suggesting low levels of stressful life events.

Ordinary least squares (OLS) regression was used to estimate the effects of goal-striving stress on mental health as measured by the SF-12 MHC and the hypothesized moderating effects of system-blame and John Henryism on the relationship between goal-striving stress and mental health. The analysis proceeded in two stages. The first included OLS regression models predicting mental health. Next, moderating effects were examined using multiplicative interaction terms between goal-striving stress and John Henryism and between goal-striving stress and system-blame.

Results

Sample Descriptives

Table 3 presents the correlation matrix and univariate statistics for items examined in the study. The mean age was 47.6 years; the youngest participant was 18 (0.3%, n = 1) years old, and the oldest participants reported an age of 95 (0.5%, n = 2). More than one half (56%) of the sample held master's or Ph.D. degrees. Most participants reported holding a master's degree (43%, n = 171), followed by having completed the bachelor's degree (38%, n = 149) and doctorate degrees (13%, n = 50). The average income in 2000 when the data was collected was \$87,652.76, with ranges from \$12,499 (0.6%, n = 2) to over \$150,000 (12.3%, n = 44). Seventy percent of the sample reported working fulltime. Nearly 6% reported

Table 3. Correlation Matrix and Sample Characteristics

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Mental Health	1.000												
2. Age	0.121*	1.000											
Education	0.130*	0.326**	1.000										
(1 = MA or													
Ph.D.)													
4. Income	-0.003	0.076	0.260**	1.000									
Employment	-0.083	-0.452**	-0.096	0.218**	1.000								
(1 = employed)													
Marital status	0.038	0.215**	0.224**	0.440**	-0.005	1.000							
(1 = married)													
7. Racial	-0.007	0.066	0.061	0.131*	0.038	0.070	1.000						
discrimination													
8. John Henryism	0.179**	0.018	0.015	0.028	-0.051	0.043	0.047	1.000					
(1 = high)	0.000	0.040444	0.050	0.050	0.000	0.021	0.1044	0.001	1 000				
9. Stressful life	-0.280**	-0.249**	-0.070	-0.052	0.230**	-0.031	0.104*	-0.081	1.000				
events	0.00(**	0.205**	0.104	0.160**	0.011	0.060	0.050	0.000	0.267**	1 000			
10. Goal-striving	-0.296**	-0.285**	-0.194	-0.162**	0.011	-0.068	0.058	-0.080	0.267**	1.000			
stress 11. Attribution	0.000	0.048	0.059	0.032	0.092	0.101	0.314**	-0.106*	0.141**	0.178**	1.000		
(1 = race)	0.000	0.048	0.039	0.032	0.092	0.101	0.314	-0.100	0.141	0.178	1.000		
12. Goal-striving	-0.146**	-0.061	-0.049	-0.097	0.027	0.058	0.215**	-0.072	0.216**	0.724**	0.587**	1.000	
stress*	-0.140	-0.001	-0.049	-0.097	0.027	0.036	0.213	-0.072	0.210	0.724	0.367	1.000	
Attribution													
13. Goal-striving	-0.075	-0.158**	-0.076	-0.074	0.013	0.029	0.096	0.506**	0.117*	0.572	0.061	0.506**	1.000
stress*JH	0.075	0.150	0.070	0.071	0.015	0.02)	0.070	0.500	0.117	0.572	0.001	0.500	1.000
N	396	396	395	359	395	396	365	389	397	379	374	365	373
Percent			56	227	71	69	200	49		- / /	44	200	- 10
Mean	54.49	47.63		87,652.76			2.24		2.50	4.16		2.26	1.85
SD	6.09	16.19		38,717.45			1.36		1.82	4.55		4.31	3.76

Note. Sample descriptive statistics include number (N) of respondents, percent of respondents when variable is dichotomous, mean, and standard deviation (SD) when continuous.

^{*}p < .05. **p < .01.

Table 4. Moderating Effects of Racial Attribution and John Henryism on Relationship Between Goal-Striv

	1		2		3		4		5	
	b	SE	b	SE	b	SE	b	SE	b	SE
Constant	53.12***	1.575	56.72***	1.643	59.71***	1.724	61.01***	1.836	59.48***	1.762
Age	0.033	0.026	0.004	0.024	-0.023	0.024	-0.033	0.025	-0.022	0.024
Education	0.591	0.752	0.616	0.691	0.460	0.670	0.437	0.667	0.480	0.672
Income	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.000
Employment	-1.162	0.896	-0.309	0.838	-0.919	0.823	-1.101	0.824	-0.888	0.825
Marital status $(1 = married)$	-0.055	0.845	-0.210	0.779	-0.040	0.755	-0.160	0.754	-0.003	0.758
Racial discrimination			-0.239	0.239	-0.230	0.231	-0.247	0.230	-0.227	0.231
John Henryism $(1 = high JH)$			1.983**	0.632	1.85**	0.612	1.79**	0.610	2.250**	0.855
Stressful life events			-1.21***	0.181	-1.046***	0.179	-1.061***	0.178	-1.053***	0.179
Racial attribution $(1 = race)$			0.909	0.673	1.284^{\dagger}	0.657	0.124	0.876	1.288*	0.658
Goal-striving stress					-0.342***	0.076	-0.513***	0.114	-0.298**	0.102
Goal-striving stress*JH							-0.092	0.140		
Goal-striving stress*Attribution									0.287*	0.144
Adjusted R^2	.01		.166		.218		.226		.216	
F	1.61		7.57***		9.29***		8.89***		8.471***	
N	299									

 $\dagger p < .1. *p < .05. **p < .01. ***p < .001.$

working parttime (n = 22), 1.8% (n = 7) reported being currently unemployed, and 18% (n = 71) were retired. Respondents were asked, "What is your present job title?" and responses were coded based on Bureau of Labor Statistics Occupational Employment Statistics Standard Occupational Classification System. The occupations ranged from health care practitioners SOC 29-1060 (physicians) to transportation and material-moving occupations SOC 53-3020 (bus driver). Sample job titles reported included police officer, teacher, virologist, college counselor, clergy, network engineer, lawyer, real estate appraiser, professor, and judge. Within the sample, 70% were married. Mean score for racial discrimination was 2.24, suggesting that respondents experienced surprisingly minimal race-specific stress. John Henryism was dichotomized using a median split. Mean score on stressful life events was 2.5, indicating that the sample had experienced few stressful events in the past year. Similarly, mean score on goal-striving stress was a modest 4.16. Forty-four percent of the respondents attributed failure to reach their goals to their race.

Table 4 presents the unstandardized regression coefficients predicting mental health and examining the moderating effects of John Henryism and system-blame on associations between mental health and goal-striving stress. The models were entered in four blocks. Model 1 introduces the demographic controls; although no significant associations were found, this was not surprising given the unique sample. The coefficients for the demographic variables were all in the expected direction, and the demographics were included in the remaining analysis (Taylor & Turner, 2002). Model 2 presents the stress-related variables. Racial discrimination was not associated with mental health. John Henryism was positively associated with mental health, and the measure of stressful life events was inversely related to mental health. Model 3 adds goal-striving stress. As predicted, goal-striving stress was significantly and inversely related to mental health. We specified an interaction between goal-striving stress and system-blame and goal-striving stress

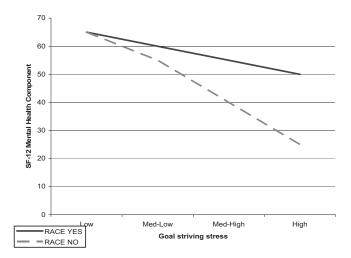


Figure 1. The significant interaction between goal-striving stress and racial attribution.

and John Henryism. The interaction between goal-striving stress and John Henryism was not significant (Model 4), suggesting that the effects of goal-striving stress do not vary by high-active coping. The interaction between goal-striving stress and racial attribution (system-blame) was significant (Model 5).

Following Aiken and West (1991), the significant interaction between goal-striving stress and system-blame was interpreted by solving the unstandardized regression equations. The effect is illustrated in Figure 1, which presents the regression slopes of goal-striving stress on mental health with all other variables held constant. The lines indicate that for both groups, as goal-striving stress increases, mental health decreases. However, the slope for individuals who do not attribute blocked opportunities to race shows a sharper decline than the slope for those who do. When goal-striving stress is high, those who attribute setbacks to race report better mental health than those who do not.

Discussion

This article examined the effects of goal-striving stress on the mental health of a sample of college-educated Black American men. Drawing on stress-coping theory, we hypothesized that goal-striving stress would be inversely related to mental health and that striving-related coping strategies, such as racial attribution and John Henryism, would moderate the relationship between goal-striving stress and mental health. We found support for the hypothesis that goal-striving stress would be positively related to poorer mental health. Among this sample of college-educated Black American men, many are accustomed to achieving their goals. They have climbed the ladder of success and may come to expect a close match between their efforts and achievements. We presume that not attaining goals is particularly disappointing.

We also hypothesized interactions between goal-striving stress and two coping resources—racial attribution and John Henryism. Our findings were mixed; we found support for racial attributions but none for John Henryism. The finding for John Henryism is somewhat of a surprise. Although John Henryism is positively and significantly associated with mental health, it is not correlated with goal-striving stress, and we found no significant interaction between goal-striving stress and John Henryism. Hence, our third hypothesis was only partially supported. On its face, it appears that John Henryism, an active coping style, should buffer goal-striving stress, a measure of the congruity between effort and achievement. This was not the case. There are several reasons for this unexpected finding. First, it is possible that the findings were related to how we measured John Henryism, specifically the use of a median split rather than a continuous measure. In further analysis (not shown), we assessed John Henryism as a continuous measure; no significant interactions were found.

It is also possible that John Henryism may buffer some types of stressors and not others. The stress paradigm (Thoits, 1995) suggests that a match between stressor and coping resources would be most beneficial. It is possible that our measure of goal-striving stress is too global. Perhaps measures of goal-striving across domains such as housing, education, employment, finance, and social standing (Mallett, Leff, Bhugra, Takei, & Corridan, 2004; Sellers & Neighbors, 2008) are needed to assess the associations between goal-striving stress, John Henryism, and mental health. Our findings support the view that while John Henryism may be inversely associated with physical health, it is positively related to mental health. This finding may contribute to the growing body of research that aims to understand the Black—White health and mental health paradox.

In contrast, we found that system-blame served as a buffer against goal-striving stress. System-blame as an explanation for failure to achieve life goals seems to protect mental health. It is often convenient to point to the negatives associated with racialized U.S. structure; this study suggests that such is not always the case. Although it may be easy to point to the victimization arising from minority status, in some ways it may actually aid in survival. This is not to say that discrimination is a protector of mental health. Rather, external racial attribution may infer resilience by providing individuals with an explanatory style for

discrimination (Crocker & Major, 1989; Keyes, 2009; Waller, 2001).

Our findings suggest that external racial attribution may be a potential mechanism of resilience. However, there is a need for additional research in this area. Specifically, further theoretical and empirical work should be done to include other attributions such as gender, age, and physical appearance (Abramson et al., 2002). For example, in a study of Black and White adolescents, Matthews, Salomon, Kenyon, and Zhou (2005) found that racerelated attributions were not associated with blood pressure for either racial group, but physical appearance was. The authors speculate that the physical appearance attribution may be especially important for this stage in development. They also suggest that racial attributions may become more salient for Blacks with further exposure to discrimination, and as they develop their ethnic identity. In the present study, it is possible that attributions are also related to unmeasured factors, such as racial identity and self-esteem. Blacks who identify strongly with other Blacks may be more sensitive to racialized experiences; likewise, those with lower self-esteem may be more inclined to self-blame (Crocker & Major, 1989; Sellers & Shelton, 2003). Unfortunately, measures of these concepts were unavailable in the data set. However, this line of reasoning suggests avenues for future research.

One line of investigation that is especially noteworthy is the question of whether racial attributions change over time and across generations. Joe (2006) suggests further investigation of attributions as a way of understanding the rising rates of suicide among young Black men. He speculates that Civil Rights and other social movements may have heightened personal expectations for achievement and strengthen the belief that opportunities were only limited by one's skills, ambition, and motivation (Jackson & Sellers, 2001). The proposed role of racial attributions in suicide risk, especially among young Black men, is an important avenue for future research. More broadly, study of the role of racial attributions, goal-striving stress, and a range of mental health outcomes is needed.

Limitations

Our findings may be related to the unique sample. Over 90% of study participants had a bachelor's degree or higher, compared to 14% of the U.S. Black population in 2000 (U.S. Census Bureau, 2000; see also Cross & Slater, 2000). This speculation highlights one important limitation of the study—its highly specific sample. Study of middle-class Black men who are members of a Black fraternal organization limits the generalizability of the study's findings. Recruitment through the fraternal organization likely resulted in a sample of men who are more racially identified and connected to networks of social support. The men may have had not only material resources, but they may also have had access to more psychosocial resources that they could bring to bear in maintaining their mental health.

A related limitation is that the study sampled only men. There is a need for research on physical and mental health that accounts for race, gender, and class (Sellers & Newmann, 2007). Major epidemiological studies in the United States have demonstrated clear gender difference in mental and physical health. Women are one and a half to two times more likely than men

to report morbidity. Men, in contrast, have a significantly higher mortality risk. Women are significantly more likely to be diagnosed with depression, men with substance abuse disorders. These gender differences typically hold for Blacks and Whites, although few published studies provide a breakdown of race differences for men and women (Sellers & Newmann, 2007). The few studies with race and gender comparison suggest intriguing similarities and differences across groups. For example, Dressler, Bindon, and Neggers (1998) found that gender alters the effects of John Henryism on physical health in a sample of Black Americans in a Southern community. The authors speculate that the gender difference is a function of role expectations and a racially stratified social structure that thwarts the upward mobility aspirations of all Blacks. However, the effects are more detrimental to Black men, because they are expected to succeed in the public sphere. The morbidity, mortality, prevalence, and community studies data suggest an important question: What is it about the life experiences that contribute to race and gender differences in mental and physical health? Although the present study is limited to analysis of college-educated Black men, this limitation points to the need for further research.

The current study has other limitations common to most cross-sectional, self-report data. We are unable to determine the causal relationships among our constructs of interests. One could argue that poor mental health might influence one's perceptions of stress and racist incidents, although evidence from longitudinal studies indicates that discrimination precedes poor health (Jackson et al., 1996). Also, each of the concepts of interest may fluctuate over time. It is possible that once a goal is reached, another quickly replaces it, such that high striving is a steady state (Mays et al., 2007). Further, our measure of goal-striving stress is an indirect indicator. For example, respondents were asked to imagine their level of disappointment rather than researchers actually having the opportunity to observe participants over time.

Our measure of racial attribution was limited to a single item with a focus on system-blame. A more robust measure of racial attribution might include several items to capture multiple dimensions of attributional style. More research using longitudinal designs is needed to determine whether and how goal-striving stress, system attribution, and John Henryism evolve over time and across generations and the relationships with mental and physical health (Breslau et al., 2006; Haritatos et al., 2007; Joe, 2006; Sellers & Neighbors, 2008).

Finally, it would be interesting to examine the relationship between goal-striving stress and physiological indicators (e.g., salivary cortisol, neuroendocrine function, immune system, cardiovascular function, and metabolic pathways; Pruessner, Hellhammer, Pruessner, & Lupien, 2003; van Eck, Berkhof, Nicolson, & Sulon, 1996). Since so little is known about how the psychological view of the social environment is linked to the subdermal and epigenetic processes that increase risk for disease, such studies would provide a preliminary glimpse into the *black box* containing the linkages necessary for developing the biopsychosocial correlates of goal-striving stress (Gianaros & Manuck, 2010; McEwen & Gianaros, 2010; Weinstein & Willis, 2001).

Along these lines, in an intriguing study of African American twins, Whitfield et al. (2006) decomposed John Henryism into genetic and environmental components. They found that most

of the individual variability in John Henryism was attributable to environmental factors. However, an interesting finding was that one-third of the variance could be attributed to genetic factors. The authors conclude with a call for additional research on the influence of genetics on disease and behavior, while cautioning researchers not to lose sight of the history of genetics research and Black Americans.

Implications

We are left with many questions that bear further study. For example, how does racial attribution, goal-striving stress, or John Henryism affect more serious mental health problems? Are there gender differences in perceptions of race-related stress and coping factors? Are these findings unique to college-educated Black men, or are they reflected in other population groups? These questions can only be answered through study with much larger, cross-cultural, and national data sets. The role of goalstriving stress, racial attribution, and John Henryism in mental health may be applicable to a broad range of groups. In our highly racialized society, even system attribution may be a universal. Whites who can attribute their failure to achieve life goals to discrimination may also experience mental health benefits. The logic may differ slightly in that discrimination may be attributed to other social characteristics such as gender, age, or personal appearance (Matthews et al., 2005), but the salutatory effects may remain.

This study has implications for research and public policy. The sample provided a unique window into the experiences of a group of men rarely studied, yet who may be at great risk for poor mental and physical health outcomes (Sellers, Bonham, Neighbors, & Amell, 2009; Williams, 2003b). To further our understanding of men's mental and physical health, it is essential to make careful reference to the complex social context in which they live.

Twenty years ago, 30% of African American male high school graduates (ages 18-24) were enrolled in college, compared with 28% of same age Black females and 41% of White males (American Council on Education, 2003). By the beginning of the 21st century, some 37% of Black men were enrolled, compared with 42% of Black women and 44.5% of White men. While there are more Black men enrolling in college than 20 years ago, other groups have outstripped them in enrolling and, even more importantly, in graduation rates. Recent data find that the college graduation rate of Black men is lower than that of any group (American Council on Education, 2003). In our highly competitive, technology-driven, global economy, college education is nearly essential. Schooling is a central institution for upward social mobility as well as an important vehicle for socialization and sense of achievement. Education provides human capital, helps shape perceptions of the opportunity structures, and may help to maintain social inequalities that then have implications for various social, economic, and health outcomes (Liu & Hummer, 2008). Research with college-educated Black men may help to elucidate some of these processes. Research and anecdotal data suggest that socioeconomic position does not afford African Americans substantial protections from discrimination (Feagin & McKinney, 2003; Ogletree, 2010; Schulz, Israel, Williams, Parker, & James, 2000). The role of race-related factors vesus socioeconomic status as a source of mental and physical health problems is the subject of considerable debate (Barr, 2008; Pieterse & Carter, 2007; Williams & Mohammed, 2009). Often, studies do not distinguish the patterns for the middle class from those of lower socioeconomic status. Such a focus may oversimplify the role of race-related factors in the health and well-being of Black Americans. Consideration of the socioeconomic diversity of the Black population is needed to more fully understand potential mechanisms of resilience (D'Anna et al., 2010; Jackson & Stewart, 2003).

Over the past few decades, the study of men's health has grown markedly (Crawshaw & Smith, 2009). Although much of this scholarship has focused on physical health, a growing body of research has begun to investigate the mental health of men across racial and ethnic groups (Bonhomme, 2007). Data to investigate the relationships between mental health, education, income, and social status can improve our overall understanding of SES and Black men's health in the United States. Additional research to explore the associations reported in this study can lead to development of new frameworks for understanding associations between SES and mental health.

In summary, this study sought to understand associations between goal-striving stress and mental health and to specify the conditions under which these associations might be weakened or strengthened. Guided by the stress paradigm, this study considered two race-related stress-moderating factors, racial attribution and John Henryism. Identifying factors that moderate the impact of goal-striving stress on mental health is new territory. It will be useful to explore these associations with physical health outcomes, more diverse samples, and over time. Further research and policies that consider the complex web of race, gender, and class inequalities are needed.

Keywords: Black American men; goal-striving stress; John Henryism; racial discrimination; racial attribution

References

- Abramson, L. Y., Alloy, L. B., Hogan, M. E., Whitehouse, W. G., Donovan, P., Rose, D. T., . . . Raniere, D. (2002). Cognitive vulnerability to depression: Theory and evidence. In R. L. Leahy & E. T. Dowd (Eds.), Clinical advances in cognitive psychotherapy: Theory and application (pp. 75–92). New York, NY: Springer Publishing Co.
- Abramson, L., Metalsky, G., & Alloy, L. (1989). Hopelessness depression: A theory-based subtype of depression. *Psychological Review*, 96, 358–372.
- Abramson, L., Seligman, M., & Teasdale, J. (1978). Learned helplessness in people: Critique and reformulation. *Journal of Abnormal Psychology*, 87, 49–74.
- Aiken, L., & West, S. (1991). Multiple regression: Testing and interpreting interactions. London, England: Sage.
- American Council on Education. (2003). 20th anniversary minorities in higher education annual status report. Washington, DC: American Council on Education.
- Barr, D. (2008). Health disparities in the United States: Social class, race, ethnicity, and health. Baltimore, MD: Johns Hopkins University Press.
- Bennett, G., Merritt, M., Edwards, C. L., Whitfield, K. E., Brandon, D. T., & Tucker, R. D. (2004). Stress, coping, and health outcomes among African Americans: A review of the John Henryism hypothesis. *Psychology and Health*, 19, 369–383.

- Bonham, V., Sellers, S. L., & Neighbors, H. (2004). John Henryism and physical health among high SES African American men. American Journal of Public Health, 94, 737–738.
- Bonhomme, J. (2007). Men's health: Impact on women, children and society. *Journal of Men's Health and Gender*, 4, 124–130.
- Borrell, L., Kiefe, C., Williams, D., Diez-Roux, A., & Gordon-Larsen, P. (2006). Self-reported health, perceived racial discrimination, and skin color in African Americans in the CARDIA study. Social Science & Medicine, 63, 1415–1427.
- Breslau, J., Aguilar-Gaxiola, S., Kendler, K., Su, M., Williams, D., & Kessler, R. (2006). Specifying race-ethnic differences in risk for psychiatric disorder in a USA national sample. *Psychological Medicine*, 36, 57–68.
- Broman, C., Mavaddat, R., & Hsu, S. (2000). The experience and consequences of perceived racial discrimination: A study of African Americans. *Journal of Black Psychology*, 26, 165–180.
- Burdine, J., Felix, M., Able, A., Wiltraut, C., & Musselman, Y. (2000). The SF-12 as a population health measure: An exploratory examination of potential for application. *Health Services Research*, 35, 855–904.
- Crawshaw, P., & Smith, J. (2009). Men's health: Practice, policy, research, and theory. Critical Public Health, 19, 261–267.
- Crocker, J., & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review*, 96, 608–630.
- Cross, T., & Slater, R. (2000). The alarming decline in the academic performance of African-American men. The Journal of Blacks in Higher Education, 27, 82–87.
- D'Anna, L., Ponce, N., & Siegel, J. (2010). Racial and ethnic health disparities: Evidence of discrimination's effect across the SEP spectrum. *Ethnicity & Health*, *15*, 121–143.
- Diaz, R., Ayala, G., Bein, E., Henne, J., & Marin, B. (2001). The impact of homophobia, poverty, and racism on the mental health of gay and bisexual Latino men: Findings from 3 U.S. cities. *American Journal of Public Health*, 91, 927–932.
- Dressler, W., Bindon, J., & Neggers, Y. (1998). John Henryism, gender, and arterial blood pressure in an African American community. *Psychosomatic Medicine*, 60, 620–624.
- Dressler, W., Oths, K., & Gravlee, C. (2005). Race and ethnicity in public health research models to explain health disparities. *Annual Review of Anthropology*, 34, 231–252.
- Feagin, J., & McKinney, K. (2003). *The many costs of racism*. New York, NY: Rowman & Littlefield.
- Gandek, B., Ware, J., Aaronson, N., Apolone, G., Bjorner, J. B., Brazier, J. E., . . . Sullivan, M. (1998). Cross validation of the item selection and scoring of the SF-12 Health Survey in nine countries: Results from the IQOLA project. *Journal of Clinical Epidemiology*, 51, 1171–1178.
- Gee, G. (2002). A multilevel analysis of the relationship between institutional and individual racial discrimination and health status. *American Journal of Public Health*, 92, 615–623.
- Gee, G., Ryan, A., Laflamme, D., & Holt, J. (2006). Self-reported discrimination and mental health status among African descendants, Mexican Americans, and other Latinos in the New Hampshire REACH 2010 Initiative: The added dimension of immigration. *Journal of Public Health*, 96, 1821–1828.
- Gianaros, P., & Manuck, S. (2010). Neurobiological pathways linking socioeconomic position and health. *Psychosomatic Medicine*, 72, 450–461.
- Gladstone, T., & Kaslow, N. (1995). Depression and attribution in children and adolescents: A meta-analytic review. *Journal of Abnormal Child Psychology*, 23, 597–606.
- Haritatos, J., Mahalingam, R., & James, S. (2007). John Henryism, self-reported physical health indicators, and the mediating role of perceived stress among high socio-economic status Asian immigrants. Social Science & Medicine, 64, 1192–1203.

- Harrison, L. (1999). How cultural values shape economic success. In F. L. Pincus & H. J. Ehrlich (Eds.), Race and ethnic conflict: Contending views on prejudice, discrimination, and ethnoviolence (pp. 97–109). Boulder, CO: Westview.
- Jackson, F., Hogue, C., & Phillips, M. T. (2005). The development of a race and gender specific measure for African American women: Jackson Phillips Hogue contextualized stress measure. *Ethnicity and Dis*ease, 15, 594–613.
- Jackson, J., Brown, T., Williams, D., Torres, M., Sellers, S. L., & Brown, K. (1996). Racism and the physical and mental health status of African Americans: A thirteen year national panel study. *Ethnicity* and Disease, 6, 132–147.
- Jackson, J., Knight, K., & Rafferty, J. (2010). Race and unhealthy behaviors: Chronic stress, the HPA axis, and physical and mental health disparities over the life course. *American Journal of Public Health*, 100, 933–939.
- Jackson, J.S., & Sellers, S. L. (2001). Health and the elderly. In R. Braithwaite & Sandra Taylor (Eds.), Health issues in the Black community (2nd ed., pp. 81–96). San Francisco, CA: Jossey-Bass.
- Jackson P., Stewart. Q. (2003). A research agenda for the black middle class: Work stress, survival strategies, and mental health. *Journal of Health and Social Behavior*, 44, 442–455.
- James, S. (1994). John Henryism and the health of African-Americans. Culture, Medicine, and Psychiatry, 18, 163–182.
- James, S., Hartnett, S., & Kalsbeek, W. (1983). John Henryism and blood pressure differences among Black men. *Journal of Behavioral Medicine*, 6, 59–78.
- James, S., Keenan, N., Strogatz, D., Browning, S., & Garrett, J. (1992).
 Socioeconomic status, John Henryism, and blood pressure in Black adults: The Pitt County study. *American Journal of Epidemiology*, 135, 59–67.
- James, S., Strogatz, D., Wong, S., & Ramsey, D. (1987). Socioeconomic status, John Henryism, and hypertension in Blacks and Whites. American Journal of Epidemiology, 126, 664–673.
- Joe, S. (2006). Explaining changes in patterns of black suicide in the United States from 1981 to 2002: Age, cohort, and period analysis. *Journal of Black Psychology*, 32, 262–284.
- Karlsen, S., & Nazroo, J. Y. (2002). Relation between racial discrimination, social class, and health among ethnic minority groups. American Journal of Public Health, 92, 624–631.
- Keyes, C. (2009). The black-white paradox in health: Flourishing in the face of social inequality and discrimination. *Journal of Personality*, 77, 1677–1705.
- Kiecolt, J., Hughes, M., & Keith, V. (2009). Can a high sense of control and John Henryism be bad for mental health? *The Sociological Quar*terly, 50, 693–714.
- Kleiner, R., & Parker, S. (1965). Goal striving and psychosomatic symptoms in a migrant and non-migrant population. In M. Kantor (Ed.), Mobility and mental health. Springfield, IL: Charles Thomas
- LaVeist, T., Sellers, R., & Neighbors, H. (2001). Perceived racism and self and system-blame attribution: Consequences for longevity. *Ethni*city & Disease, 11, 711–721.
- Liu, H., & Hummer, R. (2008). Are educational differences in the U.S. self-rated health increasing? An examination by gender and race Social Science & Medicine, 67, 189–196.
- Luten, A., Ralph, J., & Mineka, S. (1997). Pessimistic attributional style: Is it specific to depression versus anxiety versus negative affect? Behaviour Research Therapy, 35, 703-719.
- Mallett, R., Leff, J., Bhugra, D., Takei, N., & Corridan, B. (2004). Ethnicity, goal striving and schizophrenia: A case-control study of three ethnic groups in the United Kingdom. *International Journal of Social Psychiatry*, 50, 331–344.

- Matthews, K., Salomon, K., Kenyon, K., & Zhou, F. (2005). Unfair treatment, discrimination, and ambulatory blood pressure in black and white adolescents. *Health Psychology*, 24, 258–265.
- Mays, V., Cochran, S., & Barnes, N. (2007). Race, race-based discrimination, and health outcomes among African Americans. *The Annual Review of Psychology*, 58, 201–225.
- McEwen, B., & Gianaros, P. (2010). Central role of the brain in stress and adaptation: Links to socioeconomic status, health and disease. *Annals of the New York Academy of Sciences.*, 1186, 190–222
- McLeod, J., & Nonnemaker, J. (1999). Social stratification and inequality. In C. Aneshensel & J. Phelan (Eds.), *Handbook of the sociology of mental health* (pp. 321–344). New York: NY: Kluwer Academic/Plenum
- National Urban League. (2007). State of Black America: Portrait of the Black male. Silver Spring, MD: Beckham Publications Group.
- Neighbors, H., Hudson, D., & Bullard, K. M. (in press). The challenge of understanding the mental health of African Americans: The risks and rewards of segregation, support, and John Henryism. *Mental health across racial groups: Lifespan perspectives (Psychology of African American adults)*. New York, NY: Springer.
- Neighbors, H., Jackson, J., Broman, C., & Thompson, E. (1996). The mental health of African Americans: The role of self and systemblame. *Ethnicity & Disease*, 6, 167–175.
- Neighbors, H., Njai, R., & Jackson, J. (2007). Race, ethnicity, John Henryism, and depressive symptoms: The National Survey of American Life Adult Re-Interview. *Research in Human Development*, 4, 71–87
- Neighbors, H., Sellers, S. L., Zhang, R., & Jackson, J. (2011). Goalstriving stress and racial differences in mental health. *Race and Social Problems*, 3, 51–62.
- Niven, D., & Zilber, J. (2000). Elite use of racial labels: Ideology and preference for African American or Black. Howard Journal of Communications, 11, 267–277.
- Obama, B. (2006). The audacity of hope: Thoughts on reclaiming the American dream. New York, NY: Random House.
- Ogletree, C. (2010). The presumption of guilt: The arrest of Henry Louis Gates Jr. and race, class, and crime in America. New York, NY: Palgrave Macmillan.
- Pak, A., Dion, K., & Dion, K. (1991). Social psychological correlates of experienced discrimination: Test of the double jeopardy hypothesis. *International Journal of Intercultural Relations*, 15, 243– 253
- Paradies, Y. (2006). A systematic review of empirical research on selfreported racism and health. *International Journal of Epidemiology*, 35, 888–901.
- Parker, S., & Kleiner, R. (1966). Mental illness in the urban Negro community. New York, NY: Free Press.
- Peterson, C., & Seligman, M. (1987). Explanatory style and illness. *Journal of Personality*, 55, 237–265.
- Pew Research Center, Social and Demographic Trends Reports (2007). *Optimism about black progress declines*. Retrieved from http://pewsocialtrends.org/pubs/700/black-public-opinion.
- Pieterse, A., & Carter, R. (2007). Examination of the relationship between general life stress, racism-related stress, and psychological health among Black men. *Journal of Counseling Psychology*, 54, 101–109.
- Pruessner, M., Hellhammer, D., Pruessner, J., & Lupien, S. (2003). Self-reported depressive symptoms and stress levels in healthy young men: Associations with the cortisol response to awakening. *Psychosomatic Medicine*, 65, 92–99.
- Rodriguez, M. (2008). Perceived discrimination: Multiple measures and the intersections of race and gender. *Journal of African American Studies*, 12, 348–365.

- Schulz, A., Israel, B., Williams, D., Parker, E., & James, S. (2000). Social inequalities, stressors and self-reported health status among African American and white women in the Detroit metropolitan area. Social Science & Medicine, 51, 1639–1653.
- Schwartz, S., & Meyera, I. (2010). Mental health disparities research: The impact of within and between group analyses on tests of social stress hypotheses. Social Science & Medicine, 70, 1111– 1118.
- Seligman, M. (1986). Explanatory style and health. Paper presented at the meeting of the Society for Behavioral Medicine, San Francisco, CA.
- Sellers, S., & Neighbors, H. (2008). The effects of goal-striving stress on the mental health of Black Americans. *Journal of Health and Social Behavior*, 49, 92–103.
- Sellers, S., & Newmann, J. (2007). Role of material resources in race and gender differences in mental health. Paper presented at the meeting of American Sociological Association, New York, NY.
- Sellers, R. M., & Shelton, J. (2003). The role of racial identity in perceived racial discrimination. *Journal of Personality and Social Psychol*ogy, 84, 1079–1092.
- Sellers, S. L., Bonham, V., Neighbors, H., & Amell, J. (2009). Effects of racial discrimination and health promoting behaviors on mental and physical health of middle-class African American men. *Health Education and Behavior*, 36, 31–44.
- Siefert, K., Bowman, P., Heflin, C., Danziger, S., & Williams, D. (2000). Social and environmental predictors of maternal depression in current and recent welfare recipients. *American Journal of Orthopsychiatry*, 70, 510–522.
- Stuber, J., Galea, G., Ahern, J., Blaney, S., & Fuller, C. (2003). The association between multiple domains of discrimination and selfassessed health: A multilevel analysis of Latinos and Blacks in four low income neighborhoods. The Social Determinants of Health: A Special Supplement to HSR, 38, 1735–1759.
- Swim, J., & Thomas, M. (2006). Responding to everyday discrimination: A synthesis of goal-directed, self-regulatory coping behaviors. In S. Levin & C. Van Laar (Eds.), Stigma and group inequality (pp. 105–128). Mahwah. NJ: Erlbaum.
- Taylor, J., & Turner, R. (2002). Perceived discrimination, social stress, and depression in the transition to adulthood. Social Psychology Quarterly, 65, 213–225.
- Thoits, P. (1995). Stress, coping, and social support processes: Where are we? What next? [Special issue] *Journal of Health and Social Behavior* (extra issue), 53–79.
- U.S. Census Bureau (2000). Census 2000 summary file 3. Retrieved from http://www.co.rockland.ny.us/C2000/documents/Educational%20 Attainment%202000.pdf.

- U.S. Department of Labor, Bureau of Labor Statistics (2009). Usual weekly earnings of wage and salary workers: First quarter 2009. Retrieved from http://www.bls.gov/news.release/pdf/wkyeng.pdf.
- van Eck, M., Berkhof, H., Nicolson, N., & Sulon, J. (1996). The effects of perceived stress, traits, mood states, and stressful daily events on salivary cortisol. *Psychosomatic Medicine*, *58*, 447–458.
- Verkuyten, M. (1998). Perceived discrimination and self-esteem among ethnic minority adolescents. *Journal of Social Psychology*, 138, 479–493.
- Waller, M. (2001). Resilience in ecosystemic context: Evolution of the concept. American Journal of Orthopsychiatry, 71, 290–297.
- Ware, J., Kosinski, M., & Keller, S. (1996). A 12-item short-form health survey: Construction of scales and preliminary tests of reliability and validity. *Medical Care*, 34, 330–333.
- Ware, J., Kosinski, M., & Keller, S. (1998). SF-12: How to score the SF-12 physical and mental health summary scales. Lincoln, RI: Quality Metric, Incorporated.
- Weinstein, M., & Willis, R. J. (2001). Stretching social surveys to include bio-indicators: Possibilities for the health and retirement study, experience from the Taiwan study of the elderly. In C. E. Finch, J. W. Vaupel, & K. Kinsella (Eds.), *Cells and surveys; Should biological measures be included in social science research?* (pp. 250–275). Washington, DC: National Research Council.
- Wheaton, B. (1999). Social stress. In C. Aneshensel & J. Phelan (Eds.), Handbook of the sociology of mental health (pp. 277–300). New York, NY: Cambridge University Press.
- Whitfield, K., Brandon, D., Robinson, E., Bennett, G., Merritt, M., & Edwards, C. (2006). Sources of variability in John Henryism. *Journal* of the National Medical Association, 98, 641–647.
- Williams, D. (2003a). Race, health, and health care. Saint Louis University Law Journal, 48, 13–35.
- Williams, D. (2003b). The health of men: Structured inequalities and opportunities. American Journal of Public Health, 93, 724–731.
- Williams, D., & Mohammed, S. (2009). Discrimination and racial disparities in health: Evidence and needed research. *Journal of Behavioral Medicine*, 32, 20–47.
- Williams, D., Mohammed, S., Leavell, J., & Collins, C. (2010). Race, socioeconomic status, and health: Complexities, ongoing challenges, and research opportunities. *Annals of the New York Academy of Sciences*, 1186, 69–101.
- Williams, D., Neighbors, H., & Jackson, J. (2003). Racial/ethnic discrimination and health: Findings from community studies. *American Journal of Public Health*, 93, 200–208.
- Xanthos, C., Treadwell, H., & Holden, K. (2010). Social determinates of health among African-American men. *Journal of Men's Health*, 7, 11–19.