

**Race, Socioeconomic Position and Depression: The Mental Health Costs of Upward
Mobility**

by

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Dedication

To Ellyse, "Bud" and Nick

I miss you terribly and there is not a day that goes by that I do not think of you.
You were greater than I will ever be and I hope that I can take the dreams and potential
you had and weave them into my life in all aspects

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List of Abbreviations

CI.....	confidence interval
CIDI.....	Composite International Diagnostic Interview
MI.....	multiple imputation
NSAL.....	National Survey of American Life
OR.....	odds ratio
SEP.....	socioeconomic position
SES.....	socioeconomic status

Abstract
Race, Socioeconomic Position and Depression: The Mental Health Costs of Upward Mobility

by

Darrell L. Hudson

Chair: Harold W. Neighbors

The relationship between socioeconomic position (SEP) and depression among African Americans was explored in this dissertation. Several SEP indicators, specifically household income, education, parental education, net worth, and home value, were used to predict odds of depression among African Americans. This dissertation also considered how experiences of racial discrimination and the utilization of high-effort coping (John Henryism) were related to odds of depression for African Americans. Data for this dissertation were drawn from the National Survey of American Life (NSAL), which includes a nationally representative sample of African Americans. It was hypothesized that SEP would be related to increased odds of depression for African Americans. Analyses revealed that home value and parental education predict greater odds of depression among African Americans. Conversely, household income and years of education predicted decreased odds of depression for African Americans. However, the inverse association between household income, education, and depression was only observed once the effects of home value were accounted for in the multivariate logistic regression model predicting depression. It was also hypothesized that increased levels of

SEP would be related to greater reports of racial discrimination and higher John Henryism scores. Analyses indicated that higher SEP is related to greater reports of racial discrimination among African Americans. Additionally, racial discrimination was related to increased odds of depression. Parental education and home value were positively related to John Henryism while there was inverse association observed among household income, education, and John Henryism. There was no relationship between John Henryism and depression. The results of this dissertation indicate that it is important to consider both childhood SEP and indicators of wealth in the examination of depression among African Americans. Results also highlight the fact that increases in SEP are accompanied with increased exposure to racial discrimination for African Americans, which poses a threat to the mental health of African Americans. Public health researchers should explore stressors that African Americans face that may undermine the health benefits of improved SEP.

Chapter I

Introduction

Major depression is a psychiatric disorder that is highly prevalent and debilitating in the United States and worldwide (WHO, 2004; Williams et al. 2007). Prevalence estimates indicate that depression is the fourth most common cause of disability worldwide (Ustun, 2004). For the United States, depression is the leading cause of disability for Americans aged 15-44 (WHO, 2004). Kessler and colleagues (2005) estimate that depression affects over 14 million Americans each year, nearly 7% of the U.S. population. Greenberg and colleagues (2003) estimated that the economic burden for treatment of depression in the United States amounts to 83 billion dollars per year. Furthermore, researchers are continually exploring and uncovering links between depression and other health problems such as heart disease (Barth et al, 2004; Carney et al, 2004; Pratt et al., 1996; Rugulies, 2003) diabetes (Zheng et al., 1996), and suicide (Carlson et al., 1991; Oquendo et al., 2001).

To date, the majority of research findings from studies of mental health that consider the effects of socioeconomic position (SEP) generally indicate that poorer people report greater levels of mental disorder (Dohrenwend et al., 1992; Muntaner et al., 1998; Murphy et al., 1991; Williams, Takeuchi, & Adair, 1992). Nonetheless, the literature on the relationship between SEP and depression among African Americans is murky, as findings garnered from research studies on depression do not indicate that

SEP is consistently inversely related to depression within African American samples. The relationship between SEP and depression for African Americans is heterogeneous across studies and varies according to the way depression is conceptualized and how SEP is measured (Lorant et al., 2003). A number of studies have uncovered no evidence of an association between SEP and depression among African Americans (Lorant et al., 2003; Williams, Takeuchi, & Adair, 1992). In a sample of African Americans drawn from the Epidemiologic Catchment Area study, Williams Takeuchi, and Adair (1992) did not find that SEP was negatively related to depression among African Americans. In a more recent study using data from the National Survey of American Life, Williams and associates (2007) did not find an inverse relationship between income or education and depression among a nationally representative sample of African Americans.

The central research question of this dissertation is whether the benefits presumed to be associated with higher socioeconomic position protect African Americans against the development of depression. African Americans who possess greater levels of SEP experience stressors that are socially patterned by both race and SEP. Several studies have illustrated that African Americans with greater levels of SEP report more experiences of racial discrimination in educational, occupational, and residential settings, compared to poorer African Americans (Cose, 1993; Forman, 2003; Lacy, 2007). For African Americans, the development of depression could be related the realization that one's life goals are unattainable due to unfair racial barriers and African Americans who possess greater levels of SEP are more likely to experience and recognize these barriers than poorer African Americans. Keller and Nesse (2006) argue that the development of depressive symptoms such as fatigue and pessimism is a plausible reaction in the face of

failed attempts to reach personal goals or when personal goals are unattainable. Scholars have demonstrated that more educated African Americans become acutely aware of racial disparities that exist in career advancement and compensation as well as lower access to social capital through their interactions with Whites (Young, 1999). In this dissertation, it is argued that African Americans who possess greater levels of socioeconomic resources are at greater risk to develop depression resources because they are more likely to live and work in predominantly White settings and, subsequently, are at greater risk to be exposed to racial discrimination. It is also likely that African Americans of greater SEP are more aware of unfair racial barriers that diminish their returns on human capital investments than poorer African Americans (Conley, 1999; Neckerman, Carter, & Lee, 1999; Thoits, 1995; Young, 1999). Scholars argue that African Americans receive less financial compensation and experience truncated employment trajectories, compared to Whites, despite similar levels of education and work experience (Conley, 1999; Cose, 1993; Thoits, 1995). Farmer and Ferraro (2005) posit that members of racial/ethnic minority groups with greater levels of SEP become more aware of restricted socioeconomic opportunities and this awareness negatively affects mental health. Therefore, it is posited that African Americans who possess greater levels of SEP are more likely to report greater odds of depression than poorer African Americans.

The mental health and public health literature is replete with studies that have investigated the relationship between SEP and depression. This study, however, develops a more nuanced treatment of SEP by including measures of wealth and childhood SEP among African Americans. Studies that have investigated the relationship between SEP and depression among African Americans have produced variant findings. Specifically,

findings from seminal, nationally representative, community psychiatric epidemiologic studies, such as the National Survey of American Life and the Epidemiologic Catchment Study, indicate that SEP is not related to depression among African Americans and we do not observe the typical expected inverse relationship between SEP and depression. It is clear that more work needs to be done in this area.

Rationale for the Dissertation

The inverse relationship between SEP and depression is one of the most universal findings in the field of psychiatric epidemiology; this is not the case, however, for African Americans (Williams et al., 1992; Williams et al., 2007). SEP is considered to reduce the burden of and to protect individuals against the development of disease (Link & Phelan, 1995). This dissertation explored, in greater detail than prior studies, the relationship between SEP and depression among African Americans. Specifically, this research was particularly interested in whether there are "mental health costs of upward mobility" that African Americans pay as they ascend the socioeconomic hierarchy in the United States. The analyses paid particular attention to the effects of racial discrimination and high-effort coping (John Henryism) upon depression among African Americans. The goal was to ascertain under what conditions higher SEP may be associated with increased prevalence of depression, and to explore how the dynamic interplay between SEP, socially patterned stressors, and coping strategies influence major depression among African Americans.

In addition to the inconsistent SEP-depression relationship, the psychiatric epidemiologic literature on depression among African Americans is hampered by a neglect of how best to measure SEP. Despite numerous calls to the contrary, the research

community appears to be content to rely on single item indicators like income or education to measure SEP. However, education and income have important limitations to consider when examining the SEP-depression relationship and single item indicators examined alone do not provide enough information about overall SEP. As a result, researchers may have an incomplete understanding of the relationship between SEP and depression among African Americans. This may be the reason researchers do not observe significant relationships between SEP and depression among African Americans. Although the mental health and public health literatures are replete with studies that have investigated the relationship between SEP and depression, a more nuanced treatment of SEP, including measures of wealth and childhood SEP, among African Americans was conducted in this dissertation.

Race, SEP, and Depression

Williams and colleagues (1992) argue that by ignoring the socioeconomic variability within the African American population, studies will fail to identify potential linkages between SEP and depression among African Americans. A deeper examination of the heterogeneity in SEP among African Americans is required to gain a better understanding of the link between SEP and depression among African Americans (Williams, Takeuchi, & Adair, 1992). Another important aspect of this area of research that is increasingly discussed in the sociological and public health literature is the vast heterogeneity in SEP within the African American population (Bonham, Sellers, & Neighbors, 2004; Sellers, Bonham, Neighbors, & Amell, 2009; Lacy & Harris, 2008). Importantly, researchers have not adequately captured the socio-historical context in

which the prospects for attainment of SEP among African Americans have been limited, nor have they, as noted earlier, fully captured SEP (Williams & Collins, 1995).

Indicators of SEP have important limitations that are described in the public health literature (Braveman et al., 2001; Pearson, 2008). For instance, while income is easier to measure and collect than other SEP indicators like wealth, researchers have found that income is highly volatile over time and does not provide an accurate picture of future or past earnings, and is often not adjusted for regional differences or household size, which may certainly affect how much a dollar buys (Keister & Moller, 2000; Landry, 1987). Walsemann and associates (2008) argue that there is significant unobserved heterogeneity in the context of education among studies that have examined the relationship between education and health, particularly the types of schools people attend (e.g. Ivy League universities versus state institutions or public high schools versus competitive private high schools) and the opportunities and networks associated with attending different types of schools. These limitations in the conceptualization and measurement of SEP have important implications for research on the relationship between SEP and depression among African Americans.

Racial Discrimination, High-Effort Coping, and SEP

Exposure to stress is considered important in the development of mental disorders such as depression (Mirowski & Ross, 2003). Within the public health literature, racial discrimination is considered a prominent stressor and is thought to play a prominent role in the development of depression among African Americans (Kessler et al., 1999). Feagin and McKinney (2003) argue that the discrimination faced by African Americans from coworkers and employers often leads to pain, frustration, anger, and even

depression. Researchers have begun to investigate the intersection between racial discrimination and SEP (Gee, 2002; Williams, Jackson, & Anderson, 1997; Williams, 2003) and a number of studies suggest that middle class African Americans contend with greater exposure to racial discrimination than poorer African Americans (Cole & Omari, 2003; Forman, 2003; Hochschild, 1995; Williams, 2003). As aforementioned, the unique social position of African Americans of higher SEP likely facilitates more frequent interaction with Whites in racially integrated settings, especially in the workplace, and subsequently may lead to increased exposure to racial discrimination (Feagin, 1991, Feagin & Sykes, 1994, Patillo-McCoy, 1999). One of the goals of this dissertation is to explore the relationship between SEP and racial discrimination among African Americans as well as the association between racial discrimination and depression among African Americans.

Within the stress paradigm, how one responds to stress is an important factor in the prevalence of mental illness. A key component of the stress paradigm is coping (Wenzel et al., 2002). James (2002) argues that considerable energy is utilized to cope with psychosocial stressors and individuals will respond to these noxious conditions with high-effort coping, which is of particular concern to this dissertation. In this dissertation, high-effort coping is operationally defined as *John Henryism* (James, 1983; 1994; 2002). James describes John Henryism as sustained cognitive and emotional engagement in the face of difficult psychological stressors (James, 2002). Researchers have conducted studies to determine whether African Americans adopt high-effort coping strategies to cope with stressors, notably racial discrimination. High-effort coping strategies could be utilized because African Americans of higher SEP may appraise stressful situations

related to racial discrimination, such as job loss or being passed over for promotion, as situations that can be altered by hard work (Geronimus & Thompson, 2004). Indeed, it is likely that African Americans who do possess greater levels of SEP had to overcome substantial odds to gain higher levels of education and gain entry into more prestigious, higher paying occupations. A number of scholars have argued that African Americans must engage in an arduous process of upward social mobility to achieve their socioeconomic position (Cole & Omari, 2003; Neckerman, Cater, & Lee, 1999; Patillo-McCoy, 1999). Thus it seems that the utilization of high-effort coping may be a plausible coping response for African Americans who encounter stressors such as racial discrimination. In this dissertation, it is argued that African Americans of greater SEP would favor high-effort coping to address stress since it is likely that they have achieved their positions through hard work.

Though, the majority of explorations of the John Henryism construct have primarily focused on poor or low-income samples, a notable exception was a study conducted by Light and colleagues (1995) to determine whether high job status and high-effort coping, which was measured by James' John Henryism Active Coping Scale, were related to hypertension among a sample of African Americans and Whites. They found that the majority of African Americans, both men and women, and White women who held high status jobs reported high John Henryism scores in contrast to White men who held high status jobs. Additionally, Light and associates found that African Americans who held high status jobs and were more likely to utilize high-effort coping had greater diastolic and systolic blood pressure levels. It is important to continue to expand explorations of John Henryism across SEP levels, paying special attention to make sure

that study samples are socioeconomically diverse (Bonham et al., 2004; Light et al., 1995). Additionally, most studies have examined John Henryism in relation to hypertension. One of the goals of this dissertation is to determine whether among people who report increased utilization of high-effort coping increases odds of depression.

In summary, the overarching research question that drove this dissertation research was whether the benefits associated with higher socioeconomic position protect middle and upper status African Americans against the development of major depression. It also considered how socioeconomic position, racial discrimination, high-effort coping, and social mobility are related to the prevalence of major depressive disorder among African Americans.

National Survey of American Life

Data for this dissertation were drawn from the National Survey of American Life (NSAL), which includes a nationally representative sample of African American respondents. The NSAL is the most appropriate dataset to achieve the goals of this dissertation because it is the largest nationally representative survey of mental disorders among African Americans to date and it contains a rich array of SEP variables that are essential to investigate the goals of this dissertation. The strong design of the study, including face-to-face interviews, matching respondents and interviewers on race, and the NSAL sampling strategy make the NSAL ideal for analysis. Additionally, the NSAL contains a large African American sample (n=3,570) which adequately powers statistical analyses conducted for this dissertation. Finally, the NSAL utilizes the World Mental Health Composite International Diagnostic Interview (CIDI). The CIDI is a fully structured lay interview that assesses mental disorders according to both International

Classification of Diseases, 10th Revision (ICD-10) and Diagnostic Statistical Manual-IV (DSM-IV) criteria to assess a broad range of mental disorders, including depression (Kessler et al., 2005; Williams et al., 2007; Wittchen et al., 2001). Additionally, the CIDI has been used widely all over the world in major psychiatric epidemiological surveys (Kessler et al., 2005). Importantly, the CIDI assesses DSM-IV major depressive episode, not just depressive symptoms (WHO World Mental Health Survey Consortium, 2004).

Depression

According to the Diagnostic and Statistical Manual of Mental Disorders (DSM), major depressive disorder, which is commonly referred to as major depression, is a psychiatric disorder defined by at least one depressive episode (APA, 2000). Major depressive disorder is considered a syndrome that not only includes having a depressed mood for most of the day but represents a significant change in mood and a cluster of symptoms termed as a depressive episode (Preskorn, 1999). A depressive episode is diagnosed according to an array of symptoms but must include at least one of the following symptoms to meet DSM criteria for major depressive episode: 1) dysphoria, referring to depressed mood generally characterized by feelings of sadness and emptiness, or 2) anhedonia, defined as the loss of interest in things that were once important or pleasurable (APA, 2000). Additionally, the presence of at least five symptoms, in addition to the presence of dysphoria or anhedonia, during a two week period must be observed. These symptoms include trouble with sleeping (either insomnia or hypersomnia), significant weight loss or gain, feelings of fatigue, psychomotor agitation or retardation, as well as trouble thinking or concentrating and recurrent thoughts of death or suicide ideation. The presence of a major depressive episode is

required to make the diagnosis of major depression (Preskorn, 1999). The outcome variable of interest for this dissertation is major depressive episode as assessed by the World Health Organization's World Mental Health Composite International Diagnostic Interview (WHO World Mental Health Survey Consortium, 2004) which is described below.

Outline of Dissertation

Chapter two provides a theoretical discussion that examines the conceptualization of SEP and different limitations of commonly used indices of SEP; focusing on the implications of upward social mobility for increasing risk ("costs of upward mobility") or protecting against depression. Embedded in this discussion are the consideration of the merits and limitations of different SEP indices and an exploration of unique stressors and coping resources that are socially patterned by SEP for African Americans. Finally, this chapter draws attention to the process of upward mobility, which may simultaneously threaten and bolster the mental health of African Americans.

Chapter three investigated how discrete SEP indicators predict depression among African Americans. Varied objective SEP markers, namely household income, years of education, parental education, and indices of wealth (net worth and home value) were examined. Bivariate analyses and multivariate logistic regression models were used to determine the relationship between SEP and depression among African Americans in the NSAL sample.

Chapter four explored whether there is a mental health cost associated with increased levels of SEP among African Americans. Scholars have argued that there are social and psychological costs of upward social mobility for African Americans,

particularly increased exposure to racial discrimination in workplace and residential settings (Cole & Omari, 2003; Feagin & Sykes, 1994; Forman, 2003; Forman, Williams, & Jackson, 1997; Patillo-McCoy, 1999). The goals of this chapter were multifaceted. First, I examined how exposure to racial discrimination and the utilization of high-effort coping, measured by James' John Henryism construct, are patterned by SEP among African Americans. Second, I examined the impact of racial discrimination and high-effort coping upon depression. It was predicted that greater levels of SEP would correspond with increased exposure to racial discrimination, greater levels of high-effort coping, and ultimately, increased odds of depression among African Americans. Linear regression models were used to determine the effect of SEP upon levels of reported racial discrimination and high-effort coping. Multivariate logistic regression models were used to determine the effect of racial discrimination and high-effort coping upon odds of depression. The examination of these factors contributes to the social psychiatric epidemiologic literature that explores the relationship between SEP and depression. Results of this chapter also add to the growing literature that examines the mental health "costs of upward mobility" among African Americans (Cole & Omari, 2003).

Chapter five highlights the main findings from chapters three and four and places them within the context of the theoretical discussion outlined in chapter two. It also highlights important limitations and discusses future research directions that can be adopted as a result of the theoretical and empirical contributions of this dissertation. Finally, chapter five highlights the policy implications of this research.

In conclusion, the goal of this dissertation was to consider whether benefits generally assumed to come with higher SEP protect against the development of

depression among African Americans. While African Americans have made significant social, political, and economic progress in the post-civil rights era, there are substantial income, educational, and wealth differences within African American communities that are historically rooted in official government policies and discriminatory practices such as racial residential segregation. Subsequently, public health researchers may be omitting key SEP indexes such as wealth as well as structural and individual level factors that have shaped the SEP distribution of African Americans. Additionally, there is substantial heterogeneity in SEP among African Americans that public health researchers must work to account for in studies examining mental health among African Americans. So, it is critical to highlight theoretical reasons as to how SEP is patterned among African Americans and to consider how African Americans of higher SEP, face unique stressors that are socially patterned by race and SEP. Thus, this dissertation explored the "costs of upward social mobility" for depression, specifically Major Depressive Episode, for adult African Americans.

The questions addressed in this dissertation are complex. However, the theoretical framework and findings provided in this dissertation contribute to the social psychiatric epidemiologic literature by outlining important effects of SEP upon depression among African Americans and highlighting the unique stressors and related coping strategies that accompany increased SEP among African Americans.

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Chapter II

All That Glitters is Not Gold: How Measurement Misleads and Stress Damages the Mental Health of African Americans

This dissertation challenges the conventional wisdom that improvements in socioeconomic position (SEP) protect African Americans against the development of depression. Specifically, I argue that African Americans with greater levels of SEP are at *greater* risk of developing depression than poorer African Americans. In order to test this thesis as rigorously as possible, I present a novel approach to the measurement of SEP in order to better elucidate the link between SEP and depression among African Americans. First, I discuss the conceptualization and measurement of SEP, highlighting measurement limitations discussed in the public health literature and suggesting a more nuanced approach to the consideration of SEP in health studies. The measurement of SEP is particularly important given the inconsistencies observed within the mental health literature examining the relationship between SEP and depression among African Americans. Second, I discuss the concept of social mobility among African Americans and how the experience of upward social mobility could negatively or positively affect depression for African Americans. Of particular interest is the discussion of unique stressors and coping resources that African Americans of higher SEP may face, also referred to as "costs of upward mobility," that may influence the mental health of African Americans.

This chapter begins with a discussion on the conceptualization of SEP. It next examines the limitations of commonly used (e.g., income and education) markers of SEP and offers an alternative SEP measurement strategy that incorporates measures of wealth and a childhood SEP indicator. In addition to paying close attention to the conceptualization and measurement of SEP, it is also important to recognize the unique stressors that African Americans encounter as they struggle to achieve upward social mobility. This is an important area of inquiry because African Americans face numerous stressors that could undermine the benefits of attaining higher levels of SEP. These “costs of upward mobility” may threaten the mental health of African Americans despite their improved socioeconomic position.

The consideration of these two distinct literatures is important in the understanding of how SEP affects depression among African Americans. On one hand, it is critical to understand how each SEP index operates to affect health and how the exclusion of some SEP measures may underestimate the relationship between SEP and depression. On the other hand, it is important for researchers to be cognizant of the unique socially patterned stressors that African Americans encounter as they accumulate greater levels of SEP which could actually threaten the mental health of higher SEP African Americans, undermining the benefits presumed to accompany improvements in SEP.

Conceptualization of Socioeconomic Position

Williams and Collins (1995) state that "class has proven to be remarkably robust in elucidating the complexities of social and historical processes and in predicting variations within and between social groups in living conditions and life chances, skill

levels and material resources, relative power and privilege." Williams and Collins (1995) further note that health status is one area where the effects of class are evident. There is an extensive sociological literature on the conceptualization, measurement, and categorization of social class (for review, see Wright, 1979, & 1997). Due to the vast sociological discourse on different theories and conceptualizations of social class, strict adherence to any one of the social class theoretical frameworks developed by theorists such as Karl Marx or Max Weber is often difficult in public health studies, as each requires specific measurement strategies that reflect the perspective and tradition of each theoretical orientation (Lynch & Kaplan, 2000).

Although an in-depth discussion of various sociological theories of social class is beyond the scope of this paper, I will briefly discuss two seminal schools of thought that are privileged in the sociological discourse on social class. First, from the Marxist perspective, class is determined by individuals or groups' relationship to means of production in society and their ability to exploit such means (Lynch & Kaplan, 2000). On the other hand, the Weberian conceptualization of class hinges on grouping people according to the kind and quantity of resources that affect one's opportunity to obtain income in market exchanges, also referred to as life chances (Wright, 1997; p. 31). According to Weber, life chances, which are shaped by individuals' access to resources, determines their ability to sell their skills or goods on the labor market and obtain income.

Public health researchers have incorporated the concept of social class into health studies, often utilizing terms such as socioeconomic status and socioeconomic position to approximate class stratification in society. Socioeconomic status (SES) is widely used as

a proxy for social class in studies that examine variations in the distribution of disease, and SES is recognized as a strong determinant of health (Williams & Collins 1995).

Muntaner and associates (2004) refer to SES as the ordering of persons along a continuum of some valued socioeconomic attribute such as income or education. Baum and associates (1999) note that SES is an important predictor of a range of health and illness outcomes and indices of SES, such as education, income, and occupation are specific and measurable.

As described by Lynch and Kaplan (2000), socioeconomic position refers to the social and economic factors that influence what position(s) individuals and groups hold within the structure of society. Importantly, Lynch and Kaplan argue that SEP should be conceptualized beyond the individual level to incorporate structural level aspects into thinking about individuals' position in society as well as their subsequent social and environmental exposures, social environment, and behaviors. Muntaner and colleagues (2004) describe SEP as a term that encompasses both social class (referring to social relations of ownership and control over productive assets) and socioeconomic status. Thus, SEP is the preferred term for this paper because of the emphasis placed on incorporating structural factors into the categorization of people into various positions in society. It should also be noted that neither SES nor SEP are synonymous with social class and sociologists have criticized the conflation of the terms. However, SEP does provide an avenue to understand how power, prestige, and economic resources can affect health.

Measurement of Socioeconomic Position

Many studies that explore the relationship between SEP and health use indicators of life chances (income, education and occupation) as markers of SEP. Each indicator of SEP has important limitations that have been highlighted in the public health literature. Below, I discuss three commonly utilized measures of SEP, income, education, and occupation, and the limitations highlighted within each measure in the public health literature.

While income is relatively easy to measure, compared to other SEP indices such as occupation, researchers have found that income is highly volatile over time and does not provide an accurate picture of future or past economic conditions, and is often not adjusted for regional differences that may affect how much a dollar actually buys (Keister & Moller, 2000; Landry, 1987). Researchers have also noted the difficulty in obtaining accurate income information from respondents due to the sensitive, private nature of reporting one's income (Groves et al., 2004; p. 45) and have noted that collecting household income is more optimal than collecting personal income information. Stewart (2002) notes that household incomes cannot be compared without knowledge of the size of the household and that the impact of a given income is significantly dependent on family size and composition. However, income is often not adjusted for household size in health studies. For instance, Wheary (2006) finds that more wage earners contribute to the total household incomes of African Americans and looking at middle class African American families, wage earners work almost 12 weeks more per year to earn the same amount of income as White families of similar income.

Education is often identified as the most stable and robust indicator of SEP (Williams & Collins, 1995). Education, widely regarded as the key vehicle to upward

social mobility in the United States, is often found to be the strongest SEP predictor of health. Typically, public health researchers measure education by the number of years of school attended or the highest degree attained. However, several scholars argue that simply examining the years of schooling or degrees reported by research participants may not capture significant differences in educational quality that may also be relevant (Braveman et al., 2005; Walsemann, Geronimus, & Gee, 2008; Williams & Williams-Morris, 2000). Researchers usually do not pay attention to the type of school or quality of school that respondents have attended (Braveman et al., 2005). Williams and Williams-Morris (2000) argue that due to widespread racial residential segregation, the schools that African Americans attend are often largely composed of poor students in schools that are unequal to predominantly White schools. This inequality is manifest in poorer educational preparation and development of marketable skills for African American students. Therefore, there may be underlying differences in education even when it seems that the number of years of school attended or highest degree achieved seem to be equivalent. Additionally, there are different networks and opportunities that may be opened by attending certain schools, which may also be related to the quality and quantity of resources available to individuals. This is a relatively new aspect of SEP research that public health researchers have only begun to explore.

Some scholars, particularly those in the United Kingdom and Europe, utilize occupational status as a single indicator of SEP and a number of studies have illustrated a strong effect between occupational status and health (Braveman et al., 2005; Kunst et al., 1998; Marmot et al., 1997). In the classic Whitehall studies, researchers have noted that higher occupational status is related to better health among British civil servants (Marmot

et al., 1991; Marmot, 1999). However, in the United States, Braveman and associates (2005) state that most health studies do not collect information on occupation. Additionally, although occupational information is collected in vital statistics and some national health surveys, because the categories included in surveys include workers with different prestige, skills, power, and/or earnings, information on occupation included in these large scale surveys are inadequate. Thus, study respondents who possess diverse levels of education, income levels and occupational prestige are often included in the same occupational categories. Additionally, occupation is not always predicted by education or income, as there are some blue-collar workers who earn more income than managers or professionals who have greater levels of education and occupational prestige. There are also racial differences in the amount of income earned by individuals that overwhelmingly favor Whites and men, even if individuals are in the same occupation and possess the same amount of work experience and educational attainment (Krieger, Williams and Moss 1997; Williams & Collins, 1995). So it is difficult to determine which aspect of occupational status may contribute to health: the prestige of an occupation, the autonomy that accompanies certain positions, or more tangible benefits such as salary and fringe benefits. Researchers have noted that it is difficult to obtain and account for respondents' occupational status when they are employed outside of the traditional labor force, such as respondents who are unemployed, homemakers, students, children, and participants who may participate in the illegal or informal economy (Krieger, Williams & Moss 1997).

Researchers have argued that because of the limitations of the most commonly used SEP indices described above, additional SEP indicators should be incorporated into

health studies to more fully elucidate the relationship between SEP and health (Williams et al., 1997). Increasingly, scholars have advocated for the use of wealth and lifecourse measures of SEP to gain a more accurate account of the relationship between SEP and depression (Ostrove, Feldman, & Adler, 1999; Pollack et al., 2007). Importantly, the relationship between SEP and depression is especially complex for African Americans and there is a very small number of studies that have thoroughly investigated the relationship between wealth and life course SEP with depression among African Americans.

Considering Wealth in SEP

Most health studies only examine income, education, and occupation. Researchers have recently underscored the importance of measuring wealth in addition to traditional measures of SEP in health studies. Pollack and colleagues (2007) highlight findings from health studies in which researchers have utilized measures of wealth. Researchers have highlighted the importance of accounting for wealth in health studies because wealth represents a more accurate, long-term picture of individuals' economic status than income (Keister & Moller, 2000). For instance, Conley (1999) argues that parental net worth is one of the strongest predictors of future life chances, including cultural and social capital, future earnings, and the ability to generate wealth, among African Americans and Whites. Similarly, Hauser (1993) found that parental home ownership, a commonly used indicator of wealth, had a large effect on the likelihood of high school dropout and college entry, independent of current parental income, education, and occupational status.

The consideration of wealth may be particularly important when examining the relationship between SEP and depression among African Americans. When researchers do not account for wealth, it is possible that important information about SEP is omitted from studies. Although some African Americans, on the surface, may have equal levels of education, income, and even occupational status, if wealth is not incorporated, there could be underlying differences in wealth that may ultimately affect overall levels of SEP. A number of scholars have illustrated how important wealth is to individuals, influencing important life chances ranging from the types of homes individuals can purchase to the quality and quantity of education available to individuals (Conley, 1999; Gordon Nembhard, 2006; Oliver & Shapiro, 1995; Shapiro, 2004).

However, the existing research is unclear as to whether or not the inclusion of wealth indicators makes a significant difference in predicting depression. Looking specifically at studies that have investigated the relationship between wealth and mental health, studies have yielded ambiguous findings thus far. Muntaner et al. (1998), using data drawn from the National Comorbidity Study, which includes a nationally representative sample of Americans, found that wealth was negatively related to mood disorders, including depression, controlling for race/ethnicity, age, sex, and other SEP measures. Conversely, in a study by von dem Knesebeck et al. (2003), there was no relationship between assets and home ownership and depression, except for respondents aged 75 years and older in a national telephone interview study of Americans and Germans aged over 60 years of age. Kahn and Fazio (2005) found that there was no relationship between net worth and depressive symptoms among a sample of Whites and

African Americans from the Washington, D.C. metropolitan area drawn from the 2001 Aging, Stress, and Health Study.

Very few studies have examined the relationship between wealth and depression among African Americans. Ostrove, Feldman, and Adler (1999), found that SEP, measured by income, education, and wealth, were negatively associated with depressive symptoms for African American respondents. However, Rodriguez et al. (1999), using data derived from the Americans' Changing Lives survey and the National Comorbidity Study, found that greater levels of wealth were associated with lower levels of depression among White respondents but this inverse relationship was not observed among African American respondents.

While Pollack et al. (2007) conclude that wealth is associated with better health and that by accounting for wealth within measures of SEP in health studies reduces observed racial/ethnic health disparities, the results garnered from studies that have examined the relationship between wealth and depression are inconclusive. Considering the inconsistent findings found in studies that examine the overall relationship between wealth and depression thus far, there is still a need to further explore the relationship between wealth and depression. With the exception of Rodriguez et al. (1999), the studies that examined the relationship between wealth and depression reviewed above did not say anything specific about the relationship between depression and wealth for African Americans.

To date, public health researchers have not examined the relationship between depression and wealth within the African American population. Even Rodriguez et al. largely focused on comparisons between African Americans and Whites. Ostrove

Feldman, and Adler (1999) seem to come closest to exploring this relationship, but they examined the association between wealth and depressive symptoms. Due to the limited number of investigations that have explored the relationship between wealth and depression within African Americans and the overall ambiguity surrounding the relationship between wealth and depression, there is a need for more studies that examine the association between wealth and depression, particularly among African Americans.

Lifecourse Socioeconomic Position

Researchers have highlighted the importance of applying a lifecourse perspective to understanding the link between SEP and health, noting that the origins of some illnesses and disabilities that emerge during adulthood are often developed during early life (Hertzman & Power, 2003). For instance, Lynch, Kaplan and Shema (1997), using data from a sample of respondents representative of Alameda County, California, compare respondents who were chronically low income with those who did not experience economic hardship over three occasions during an 18-year period of observation. They found that chronically low income respondents were more likely than those who had never experienced poverty to report clinical depression. Researchers have found that low childhood SEP is predictive of adult depression (Gilman et al., 2002; Kessler & Magee, 1993; Sadowski et al., 1999). Gilman and colleagues, using data comprised mostly of White Americans from the Providence National Collaborative Perinatal Project, found that participants from lower SEP backgrounds had nearly a twofold increase in risk for major depression compared to those from the highest SEP background, controlling for childhood sociodemographic factors, family history of mental illness, and adult SEP. Another study conducted by Strohschein (2005) used data

from the National Longitudinal Survey of Youth to evaluate the influence of household income trajectories on child depression and antisocial behavior over time. Overall, Strohschein found that income trajectories were related to depression and antisocial behavior among African Americans. Specifically, at baseline, Strohschein found that low household income was associated with higher levels of depression and antisocial behavior. However, over the course of the study, improvements in household income reduced child depression only; income improvement had no effect on antisocial behavior.

These studies offer evidence which suggest that it is important to measure childhood SEP, as well as fluctuations in SEP over the lifecourse, to gain a better understanding of the relationship between SEP and depression. However, information about the relationship between lifecourse SEP and depression among African Americans is lacking. The lifecourse studies mentioned above utilize regional or national datasets, which may include African American respondents, but researchers either did not focus on looking at the unique role that lifecourse SEP plays for African Americans, specifically, or there were not enough African American respondents to analyze. There are very few studies overall that explore the relationship between lifecourse SEP and mental health, much less depression, and there are not enough studies that have evaluated the impact of lifecourse SEP upon the mental health of African Americans.

Measuring SEP among African Americans

The first section of this chapter has defined socioeconomic position and described some of the measures commonly used to represent SEP in public health research. There are numerous challenges that accompany each SEP indicator and while it is important to note these limitations, it is not enough to simply highlight these limitations in developing

a better understanding of the relationship between race, SEP, and depression. It seems the best strategy for measuring SEP is to incorporate traditional measures, including education, income, and occupation, as well as information on wealth and lifecourse SEP. In a recent book, *Social Class: How Does It Work?* Conley advocates for a "kitchen sink" approach to the measurement of SEP, in which researchers incorporate as many varied SEP indices into studies as possible rather than trying to create one comprehensive scale or index to measure SEP (Conley, 2008). As previously mentioned, the incorporation of wealth into the measurement of SEP may further elucidate underlying health disparities between African Americans and Whites (Pearson, 2008; Pollack et al., 2007). However, there is not enough information about how wealth operates within the African American population, particularly in regard to the prediction of depression. With regard to lifecourse SEP, researchers have demonstrated that it is important to examine how individuals' childhood socioeconomic conditions impact mental health. Yet, there have not been examinations of how measures of lifecourse SEP could affect depression among African Americans. In Chapter three, I incorporate indices of wealth and a measure of childhood SEP, parental education, in order to examine the overall relationship between SEP and depression among African Americans and to examine how each SEP indicator is associated with depression.

Upward Social Mobility among African Americans

Sellers (2001) describes social mobility as movement which places individuals into a social world that significantly differs from the one into which they was socialized during childhood, noting that mobility takes place over time and space and involves trajectories such as downward relative to one's parents. As such, scholars have argued

that upwardly mobile African Americans seemingly straddle two worlds. The concept of double consciousness, termed by DuBois over 100 years ago, relates to African Americans' struggle to maintain their ties to their kin networks as well as a shared destiny the entire African American community, all while navigating social spaces that are predominantly White and call for African Americans to adapt their style of speech, dress and even hair to be positively acknowledged within integrated environments.

Recently, scholars have begun to conduct studies aimed at investigating the unique social position of middle class African Americans. For instance, sociologist Karyn Lacy has conducted a number of studies aimed at understanding how middle class African Americans strive to maintain not only their cultural bonds to the larger African American community but also to help shape their children's connection to ideas of "Blackness" (Lacy, 2004; 2007; Lacy & Harris, 2008). Mary Patillo's work has chronicled the challenges that middle class African Americans and their families face as they seek to exist even in racially homogenous environments (Patillo-McCoy, 1999; Patillo, 2007).

It is important to study African Americans of higher SEP because they are exposed to unique stressors that are patterned by both race and SEP. Given that many African Americans begin their lives in poverty, it important to understand how not only childhood exposures affect the mental health of African Americans but also how the process of upward social mobility could either threaten or protect African Americans against the development of mental disorders. There are certainly advantages that upward social mobility brings to African Americans in spite of the challenges that the process of upward mobility pose to African Americans. At bare minimum, increases in

socioeconomic resources provide protection from economic strains and may provide a buffer against the development of depression and other diseases as researchers typically find that there is an inverse association between SEP and depression (Dohrenwend et al., 1992; Williams, et al., 1992).

Researchers have inquired as to whether the process of upward mobility could be deleterious to the mental and physical health of African Americans (Cole & Omari, 2003; Colen et al. 2006; Feagin & Sykes, 1994; Forman, 2003). There are clear advantages to embarking on the path of upward social mobility for African Americans. Among the respondents conducted by sociologists, there is a sense of achievement and personal satisfaction expressed among respondents who have found success in a society where the odds are steeply stacked against them (Neckerman, Carter, & Lee, 1999). However, African Americans of higher SEP may also pay costs of upward mobility. This section presents some of the unique psychosocial stressors that African Americans may experience as a result of engaging in the process of upward social mobility.

Costs of Upward Mobility: Challenges Upwardly Mobile African Americans Face

Diminished Returns on Human Capital Investments

In addition to the economic challenges that African Americans, irrespective of SEP, encounter, a related potential cost of upward mobility African Americans may face is the receipt of diminished returns on human capital investments. Carpiano, Link, and Phelan (2008) describe the relative deprivation and hierarchy stress argument, which downplays the material contributions of SEP and emphasizes the social comparison aspect that different levels of education, income, and occupational status may provide. From the relative deprivation and hierarchy stress argument, income may be seen as a

way of keeping score in status competitions. They note findings from the Whitehall study which indicate that even among individuals at the top of the occupational hierarchy in the British civil service, researchers still observed health advantages that the highest ranked individuals enjoyed over the second highest ranked group. Williams (2003) suggests that the expectations of African Americans are often unfulfilled because their investments in education do not provide parallel gains in income that Whites enjoy. For instance, in his 1999 paper, Williams states that African Americans receive poorer quality education, work in more hazardous jobs, are paid lower salaries, despite equivalent levels of education and work experience, and less wealth and purchasing power at equivalent income levels compared to Whites. Researchers have shown that at every level of education, African Americans earn lower levels of income compared to Whites. Williams contends that the discrepancy in returns on human capital investment, compared to Whites, may be a unique source of stress and alienation for African Americans.

Researchers have documented how African Americans struggle with the disparity between their lifestyle expectations and the position they occupy. Williams (2003) cites the rising expectations hypothesis (Geschwender, 1964) and Dressler's status incongruence hypothesis (1991). The rising expectations hypothesis asserts that increasing expectations will lead to dissatisfaction and attempts to change the social order. As such, African Americans who improve their life chances through education and subsequent increases in income and occupational prestige may develop higher expectations for a certain standard of living. However, if expectations are not realized, the resultant inconsistency may increase levels of distress. Dressler posits that the discrepancy between one's lifestyle and economic status, or the "status incongruence"

can lead to conflict and stress, which may also relate to mental disorders such as depression.

Researchers have also described the goal striving stress model. Goal striving stress defined as stress resultant from perceived discrepancies between individuals' aspirations and their actual achievements. Sellers and Neighbors (2008) argue that because of racial discrimination and related structural barriers that limit the social and economic advancement of African Americans in the United States, it is possible that the perceived discrepancy between aspirations and achievement negatively affects the mental health of African Americans. They examined the National Survey of Black Americans, which included a nationally representative sample of Black Americans, to explore the relationship between goal-striving stress and mental health. Sellers and Neighbors found that increased levels of goal striving stress were related to lower levels of happiness, life satisfaction, self-esteem, and higher levels of psychological distress. They also found that poverty status moderated the relationship between goal-striving stress and mental health. Specifically, poor respondents with low levels of goal striving stress reported lower levels of happiness and life satisfaction compared to higher income African Americans. However, at high levels of goal striving stress, poor African Americans reported higher levels of happiness and life satisfaction than non-poor African Americans.

A number of sociologists have written about the process of upward mobility among African Americans. Alford Young's *Navigating Race: Getting Ahead in the Lives of 'Rags-to-Riches' Young Black Men* chronicles the stories of four young African American men who all began from humble beginnings but have found their way to highly

competitive graduate and professional programs (1999). Here, the young men describe the personal, familial, and community level factors that allowed them to overcome incredible odds to achieve their dreams. Notably, one of Young's respondents states that the further up the socioeconomic hierarchy he goes, the more he recognizes structural barriers in place that prevent African Americans from attaining similar success as Whites. Concordantly, Hochschild states that poor African Americans believe in the American dream more than rich African Americans because of the realization that despite greater levels of education, higher incomes, and more prestigious occupations, there is still an enormous gap between African Americans in assets accumulation (Conley, 1999; Hochschild, 1995).

Respondents in some examinations of upwardly mobile African Americans also express feelings of anger, hurt, disappointment and even rage as they struggle against glass ceilings in their careers or compare their success to their White peers and coworkers (Feagin & McKinney, 2003). Middle class African American informants in Ellis Cose's *Rage of a Privileged Class* recount painful experiences of racial discrimination that have affected them emotionally and have also stunted the growth of their careers (Cose, 1993). It should be noted that Cose's work was not a qualitative research study but rather a journalistic investigation. However, Cose's informants are particularly vexed because despite their advanced degrees from elite educational institutions, they still regularly encounter White Americans who tell them that they only have the positions they have because of pressures to fill minority quotas. Cose's informants describe encounters in which their White colleagues have challenged their competence or who have worked to make them feel isolated and unwelcome.

So it is possible that while African Americans who have greater incomes, more education, more prestigious jobs, and potentially more wealth than poorer African Americans, may be at risk of developing higher rates of depression than low income African Americans due to stress derived from using Whites as their main social comparison group. Higher SEP African Americans may also have equal or higher rates of depression than low income African Americans due to other unique psychosocial stressors, such as exposure to racial discrimination, that are socially patterned by SEP for African Americans.

Increased exposure to racial discrimination

Exposure to stress is considered to be an important factor in the development of mental disorders (Mirowski & Ross, 2003; Turner & Lloyd, 2004). Within the psychiatric and social epidemiologic literature, racial discrimination is considered a unique, socially patterned stress exposure and is thought to play an important role in the mental health of African Americans and researchers have begun to investigate the intersection between racial discrimination and SEP (Gee, 2002; Kessler, et al. 1999; Williams, Jackson, & Anderson, 1997; Williams, 2003). Williams (2003) argues that exposure to racial discrimination is an added burden that African Americans face, and he posits that perceptions of discrimination are stressors that can adversely affect both physical and mental health. A number of studies suggest that middle class African Americans contend with numerous stressors related to overt and covert racial discrimination manifested in both experiential, such as diminished returns for investments in human capital, and limited advancement in occupational settings due to "racialized" glass ceilings, and structural forms such as racial residential segregation

(Cole & Omari, 2003; Forman, 2003; Hochschild, 1995; Williams, 2003). Researchers have noted that African Americans of higher SEP are more likely to work and live in integrated settings and a number of studies conclude that higher SEP is associated with increased exposure to racial discrimination (Brayboy Jackson & Stewart, 2003; Forman, 2003, Williams, 2003).

Feagin and McKinney (2003) found that when middle class African Americans used their families as a resource to help them cope with discrimination and racism, their kin shared the pain and emotional costs of these negative experiences. Feagin and McKinney (2003) interviewed African American respondents who described distress and pain resulting from discriminatory workplace encounters with White co-workers. It would certainly seem that these kinds of discriminatory experiences would threaten mastery and self-esteem, which are two established risk factors for depression, of middle class African Americans, thereby increasing African Americans' vulnerability to develop depression (APA, 2000; DHHS, 2001).

Lacy (2007) interviewed middle class African American respondents in the metropolitan Washington, D.C. area in order to provide a more accurate representation of middle class African American communities and to outline strategies used by middle class African American residents to cope with racial discrimination and to prevent potential incidents of racial discrimination. Lacy's respondents describe elaborate schemes used to construct "public identities" in order to signal their middle class status to Whites, showing that they belong in certain settings, such as shopping in upscale stores or seeking housing in White neighborhoods. Though Lacy's respondents do not report the same degree of anger and pain described by Feagin and McKinney's respondents, she

wonders whether her respondents are harmed psychologically by the construction and practice of delicate racial and class interactions that they must navigate.

Clark and colleagues (2002) highlight the importance of recognizing perceived racial discrimination as a unique stressor that African Americans encounter. Subsequently, exposure to racial discrimination is related to both increased levels of depressive symptoms (Brody et al., 2006) as well as increased odds of depression (Kessler et al., 1999). Kessler et al. (1999) further argue that the experience of racial discrimination is highly stressful, ranking in significance with other major stressful life events such as job loss, divorce, and death of a loved one. Indeed, researchers have found empirical associations between perceived discrimination and impaired psychological well-being, depression, and decreased self-esteem (Karlsen & Nazroo, 2002; Williams, Takeuchi, & Adair, 1992; Williams et al., 1997). For instance, a study of middle class African American men recently completed by Sellers and associates (2009) found a negative relationship between racial discrimination and self-rated mental health but did not observe this relationship when examining self-rated physical health. They argue that it is possible that racial discrimination is more deleterious to mental health than physical health.

African Americans who accumulate greater socioeconomic resources may be more at risk of exposure to racial discrimination. While there have been several studies that have illustrated that SEP is associated with greater reports of racial discrimination, one study by Broman and colleagues (2000) found that lower income African Americans were more likely to report workplace related discrimination than their middle class African American counterparts. Studies suggest that African Americans with greater

levels of SEP are more likely to live and work in racially integrated settings, which may increase their risk of exposure to racial discrimination. More research should be conducted to determine if SEP is associated with greater reports of racial discrimination African Americans. In chapter four, I explore the relationship between SEP and racial discrimination among African Americans using a nationally representative sample of African Americans.

Strained social support networks

Researchers have highlighted the importance of social support in coping with stressors, particularly in buffering against psychological distress (Thoits, 1995; Wheaton, 1985). Cassel (1976) concludes that "the most feasible and promising interventions to reduce disease will be to improve and strengthen the social supports rather than reduce the exposure to stressors." Not only have researchers found that African Americans experience greater levels of racial discrimination, they may also reside further away from potentially salubrious social support networks (Lareau, 2003). In her ethnographic study, Lareau reports that middle class African Americans had less frequent contact with members of their extended family and lived further away from their extended families (2003). Colen and colleagues (2006) found that African American children who were born into homes with their grandmothers had more favorable birth outcomes than homes without a grandmother present. Additionally, Colen et al. conclude that as African American women begin to achieve upward social mobility, they may be less likely to rely on their mothers for support during their pregnancy or for assistance with child-rearing responsibilities after the baby is born. These findings suggest that African Americans of

higher SEP may not have adequate access to social support networks that can help navigate stressful situations.

Considering the widespread racial residential segregation that exists in the United States, some scholars reject the notion that African Americans who are of greater SEP live further away from social support networks (Patillo, 2007; Patillo-McCoy, 1999). Cole and Omari (2003) argue that while economic privilege may provide security and well-being to African Americans of greater SEP, it is often accompanied by some guilt and grief with respect to those left behind in poverty. For African Americans, they argue, those left behind are often loved ones and family members. Heflin and Patillo (2006) find that middle class African Americans are highly likely to have low-income siblings and that middle class African Americans incorporate the socioeconomic status of their extended families into their own conceptions of class standing. For instance, Higginbotham and Weber (1992) interviewed a sample of 200 working and middle class African American and White women to investigate the levels of responsibility and obligation these women felt toward members of their social networks. Researchers asked women the following: "Generally, do you feel you owe a lot for the help given to you by your family and relatives?" The authors report that while many White women were perplexed by the question, most African American women responded affirmatively to the question. Higginbotham and Weber demonstrate that African Americans of higher SEP maintain strong links to their social support networks. As portrayed in her 2007 book, *Black on the Block*, Patillo describes a neighborhood in Chicago undergoing gentrification by middle and upper income African Americans. She argues that middle class African Americans often play the role of "middlemen and middlewomen" since

they often possess the kind of cultural and social capital needed to advocate for safer neighborhoods, better schools, or to help find better jobs and navigate the system of higher education that working class and poor African Americans do not have. As such, the role of "middlemen and middlewomen" is played by middle class African Americans who, according to Patillo, act as brokers between White economic and political power and the needs of a predominantly African American neighborhood.

Researchers have described the unique stress that African Americans with greater levels of SEP may face. On the one hand, some scholars argue that African Americans who possess greater socioeconomic resources reside further away from their social support networks and the positive social support that these networks have to offer (Colen, 2003; Lareau, 2006). Alternatively, other scholars suggest that African Americans live in close proximity to poorer African Americans and African Americans wither greater amounts of SEP must provide social capital to poorer members of their social support networks (Patillo, 2007). An investigation of where African Americans with greater levels of SEP reside and the kind and quality of social support to which they have access is an area of research that deserves more attention.

Utilization of High-effort Coping

A key component of the stress paradigm is coping (Wenzel et al., 2002). James (2002) argues that considerable energy is utilized to cope with psychosocial stressors and individuals will respond to these noxious conditions with high-effort coping. High-effort coping has been identified as a resource that African Americans utilize to cope with psychosocial strategies (James, 2002). Sherman James conceptualizes high-effort coping as *John Henryism* (James, 1983; 1994; 2002), described as sustained cognitive and

emotional engagement in the face of difficult psychological stressors (James, 2002). Researchers have conducted studies to determine whether African Americans adopt high-effort coping strategies to cope with stressors, notably racial discrimination. High-effort coping strategies could be utilized because African Americans of higher SEP because they may appraise stressful situations related to racial discrimination, such as job loss or being passed over for promotion, as situations that can be altered by hard work (Geronimus & Thompson, 2004).

The association between John Henryism and hypertension among African Americans has been thoroughly documented within the public health literature (James et al., 1983; James et al., 1994). James initially posited that John Henryism would interact with low SEP to affect the health of African Americans (James et al., 1987; Merritt et al., 2004), so the majority of explorations of the John Henryism construct have focused on poor or low-income samples. There are a few notable exceptions. In a study conducted by Light and colleagues (1995) to determine whether high job status and John Henryism were related to hypertension among a sample of African Americans and Whites. They found that the majority of African Americans and White women who held more demanding, high status jobs had higher John Henryism scores than White men who held similar high status jobs. Additionally, Light and associates found that African Americans who held high status jobs and were more likely to utilize high-effort coping had greater diastolic and systolic blood pressure levels than Whites. More recently, researchers have begun to investigate John Henryism among high SEP samples. Bonham, Sellers and Neighbors (2004) examined high SEP African American men to explore the relationship between John Henryism and self-rated health. They investigated this relationship in a

sample of 399 African American men who were members of a national fraternal organization. They found a positive relationship between John Henryism and better physical health among high SEP African American men. Bonham, Sellers, and Neighbors note that most studies find that SEP protects African Americans from the negative health affects associated with John Henryism. However, they conclude that for the high SEP African American men in their study, John Henryism is beneficial to health.

High-effort coping strategies could be utilized because African Americans of higher SEP may appraise stressful situations related to racial discrimination, such as job loss or being passed over for promotion, as situations that can be altered by hard work (Geronimus & Thompson, 2004). Thus, it may be worthwhile to continue to expand explorations of John Henryism across different levels of SEP, paying special attention to make sure adequate numbers of higher SEP African Americans are sampled in studies (Bonham et al., 2004; Light et al., 1995).

To date, there have not been many explorations of the relationship between John Henryism and depression. One recent study conducted by Neighbors, Njai, and Jackson, (2007) explored the relationship between John Henryism and depressive symptoms using the National Survey of American Life which included African American, Caribbean Black, and White respondents. Interestingly, their study found that John Henryism was not associated with depressive symptoms among African Americans. They note that their findings should not be interpreted as definitive and encourage researchers to conduct more research on the relationship between John Henryism and mental health among African Americans.

There have been very few studies that have examined the relationship between depression and John Henryism among African Americans. There is also a need for more studies to investigate the relationship between SEP and John Henryism among African Americans. In chapter four, I explore the relationship between SEP and John Henryism among African Americans and evaluate the affect of John Henryism upon odds of depression.

Conclusion

The goal of this chapter was to outline the conceptualization of SEP and specific strengths and limitations that different SEP indices have and to highlight how the process of upward social mobility could pose threats to the mental health of African Americans. Considering the limitations that each SEP index presents and the complex relationship between SEP and depression observed in existing studies, a more comprehensive treatment of SEP, including the utilization of varied SEP indices, is warranted. The incorporation of wealth into the conceptualization of SEP is largely absent in the public health literature and results from existing studies that investigate the incorporation of wealth in the prediction of mental health are inconclusive. Additionally, most studies that examine the relationship between SEP and depression are cross sectional. Since many African Americans begin life economically poor, it is possible that they are exposed to environmental and social stressors in early life that may affect their adult health. The exploration of the relationship between SEP and depression within the African American population is an important area of inquiry. In chapter three, I explore the relationship between SEP and depression using varied measures of SEP including the incorporation of wealth and childhood SEP measures.

African Americans face stressors that are socially patterned by race and SEP. The unique social position of African Americans of higher SEP likely facilitates more frequent interaction with Whites, thus increasing exposure to racial discrimination, which is an important predictor of depression among African Americans. In chapter four, I contend that increased levels of SEP will be associated with greater reports of racial discrimination among African Americans. One coping strategy privileged in the public health literature is John Henryism, described as prolonged effortful coping in the face of sustained detrimental social or economic circumstances by Sherman James. However, most investigations of high-effort coping among African Americans found in research studies have focused on poor African Americans and hypertension. In chapter four, I provide an empirical analysis of the potential mental health "costs of upward mobility," African Americans may pay as they ascend the socioeconomic hierarchy in the United States, notably exposure to racial discrimination and increased utilization of high-effort coping.

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Chapter III

The Relationship between Socioeconomic Position and Depression among a Nationally Representative Sample of African Americans

There has long been observed a higher prevalence of depression observed among poorer individuals (Brown & Adler, 1998; Dohrenwend & Dohrenwend, 1969; Dohrenwend et al, 1992; Muntaner et al., 1998; Murphy et al., 1991). However, researchers have noted complexity in the psychiatric epidemiologic literature as to whether SEP is a protective factor against depression for African Americans (Williams et al., 1992). Additionally, there have been very few studies that have investigated the relationship between SEP and depression among African Americans (Ostrove, Adler, & Feldman, 1999; Williams et al., 1992). Williams et al. (1992), citing data from the Epidemiologic Catchment Area study, found no relationship between SEP and depression among African Americans. More recently, Williams et al. (2007) using data drawn from the National Survey of American Life, found that there were no significant relationships between income or education and depression although they did find that unemployed respondents had a higher prevalence of depression than respondents who were employed or out of the work force. Ennis et al. (2000) using a sample of African American and White women recruited from low-income health clinics found that income was unrelated to depression among African Americans. The results of these studies indicate that more

research should be conducted to explore the relationship between SEP and mental health, particularly depression, among African Americans.

Researchers typically use income, occupational status or work status, and education, individually or in some combination, as indicators of SEP (Adler & Ostrove, 1999; Lynch & Kaplan, 2000; Muntaner et al., 2004). The relationship between SEP and health is consistent and robust throughout the public health literature and researchers frequently observe a health gradient according to SEP (Dohrenwend et al., 1992; Muntaner et al., 2004). However, researchers have noted important methodological limitations when using indicators of SEP that are most commonly used in health related studies, particularly income and education. Income is likely the most commonly used SEP indicator, yet researchers have found that income changes over time, does not provide an accurate picture of future or past economic conditions, and is often not adjusted for regional variability (Keister & Moller, 2000; Landry, 1987). Education is widely regarded as the key vehicle to achieve upward social mobility in the United States is often regarded as the strongest SEP predictor of health. However, Walsemann and colleagues (2008) argue that differences in the benefits of education are overlooked in studies that have explored the relationship between education and health because researchers are restricted to measuring years of education or highest degree earned (Walseman, Geronimus, & Gee, 2008), which precludes researchers from obtaining information about the opportunities and social networks that respondents may be afforded or excluded from as a function of the type of school they attended.

Considering Wealth in the Measurement of SEP

Researchers have begun to advocate for the inclusion of other indices of SEP in order to gain a fuller understanding between SEP and depression. One such index highlighted in the public health literature is wealth. Researchers have highlighted the importance of measuring wealth in addition to traditional SEP measures such as income and education in health studies (Pollack et al., 2007) because wealth represents a more accurate, long-term picture of individuals' economic status than income (Keister & Moller, 2000). Pearson (2008) argues that wealth is an important SEP indicator because it partially accounts for historical events and structural level policies that have led to an unfair distributions of material resources across racial/ethnic groups in the United States.

In a review of literature conducted by Pollack and colleagues (2007), they highlight findings from health studies that included measures of wealth. Looking specifically at studies that have investigated the relationship between wealth and mental health, studies have yielded inconclusive findings thus far, especially when examining racially diverse samples. For instance, Rodriguez et al. (1999), find that greater financial assets were associated with lower levels of depression among White respondents. However, this inverse relationship was not observed among African American respondents. Muntaner and colleagues' 1998 study, using data drawn from the National Comorbidity Study and the Epidemiologic Catchment Area Study Follow-up, revealed that wealth was negatively related to depression controlling for age, race/ ethnicity and social class. Muntaner et al. posit that the negative relationship between wealth and depression may be due to the protective effect of wealth on mental health through a sense of control and predictability in workplace, leisure, and consumption activities. Conversely, von dem Knesebeck et al. (2003) found that there was no relationship

between assets and home ownership and depression in a sample of older Americans and Germans using data from two national telephone surveys. Looking specifically at the U.S. sample, von dem Knesebeck et al. observed no consistent relationships between SEP indicators and depression or other health indices. Considering the inconsistent findings uncovered in the small number of studies that examine wealth and depression thus far, there is still a need to further explore the relationship between wealth and depression, particularly for African Americans.

Lifecourse SEP

Increasingly, researchers have advocated for a lifecourse approach to understanding the relationship between SEP and health, noting that childhood SEP likely plays an important role in the development of adult health problems. Critically, as recently as 2006, the U.S. Census estimates that over one third of African Americans were currently living in poverty (U.S. Census Bureau, 2009). Corcoran and Chaudry estimate that nearly 90% of the chronically poor children in the United States are African American (Corcoran & Chaudry, 1997). Childhood poverty not only limits the opportunities for many African Americans to acquire socioeconomic resources as adults, but childhood poverty is also linked to adulthood depression (Gilman et al., 2002; Kessler & Magee, 1993; Sadowski et al., 1999). In a review of literature, Muntaner and associates (2004) conclude that lower childhood SEP was associated with higher odds of adult depression in the psychiatric epidemiologic literature and note the persistent association between low SEP and depression over long periods of time. Lynch, Kaplan and Shema (1997), using data from a representative sample composed of mostly White respondents in Alameda County California, compared respondents who were chronically

low income with those who did not experience economic hardship over three occasions during an 18-year period of observation. They found that persistently low income respondents, irrespective of race, were more likely to report significantly greater odds of depression than respondents who never experienced economic hardship.

Gilman and colleagues (2002) found that participants from lower socioeconomic backgrounds had nearly a twofold increase in risk for major depression compared to those from the highest background, controlling for childhood sociodemographic factors, family history of mental illness, and adult socioeconomic status. Strohschein (2005) used data drawn from the National Longitudinal Survey of Youth to evaluate the influence of household income trajectories on child depression and antisocial behavior over time. At baseline, she found that low household income was associated with higher levels of depression and antisocial behavior. However, over the course of the study, improvements in household income reduced child mental health problems.

These studies illustrate the importance of measuring childhood SEP in order to gain a better understanding of the relationship between SEP and depression among African Americans. Many African Americans, even those who may currently report higher levels of socioeconomic resources, grew up in poverty, which would seemingly increase their risk for depression as adults, irrespective of current reported measures of SEP such as income and education (Colen, 2005). The socioeconomic conditions that African Americans experience during childhood and throughout the lifecourse may have an affect upon depression that is not adequately captured by examining the current reported income and education of African Americans. It would also seem that greater childhood socioeconomic resources would protect against depression. However, the

studies described above have not investigated the relationship between childhood SEP and depression among African Americans, so it is unclear as to whether these relationships are true across race or primarily among White Americans.

The Present Research

Each commonly used SEP indicator has important limitations that are described in the public health literature (Braveman et al., 2005; Pearson, 2008) and previous studies that have investigated the relationship between SEP and depression among African Americans have produced inconsistent findings described above. Researchers have advocated for analyzing multiple, distinct indicators of SEP rather than a single indicator when investigating the relationship between SEP and health (Muntaner et al. 1998). Sociologists have also been critical of the index approach to measuring SEP in which multiple SEP indicators are synthesized into one comprehensive index (Conley, 2008). This paper seeks to further examine the relationship between SEP and depression among African Americans through the use of multiple indicators of SEP, including household income, education, childhood SEP, and wealth.

The research questions I seek to answer are: 1) what is the relationship between each SEP indicator and depression among African Americans; 2) does accounting for childhood SEP and indices of wealth alter the relationship between these SEP indicators and depression among African Americans. To this end, I examine the independent effect of each discrete index on the odds of depression while controlling for important sociodemographic factors. Next, I determine the independent effect of each discrete SEP indicator upon depression net of all sociodemographic factors and all SEP markers.

Hypotheses

Although researchers typically find an inverse association between SEP and depression, I predict that childhood SEP, income, education, employment status, and wealth, will be *positively* related to odds of depression among African Americans. This hypothesis is derived from the fact that researchers have found that upper SEP African Americans experience greater levels of racial discrimination compared to low SEP African Americans; and that exposure to discrimination increases risk for the development of depression (Kessler et al., 1999). It is also posited that upper SEP African Americans receive diminished returns on investments in human capital and as a result, upper SEP African Americans may experience higher feelings of resentment and disappointment than lower SEP African Americans (Cole & Omari, 2003; Farmer & Ferraro, 2005; Forman, 2003; Williams, 2003). It is further hypothesized that the inclusion of childhood SEP and wealth will provide an improved understanding of the relationship between SEP and depression among African Americans. That is, by including these additional measures, there will be an increased amount of variance explained in depression, compared to only including traditional measures of SEP. Additionally, the relationship between traditional measures of SEP and depression will be altered, in magnitude and in direction, by the inclusion of analyses predicting depression. The results from this chapter will help to determine whether the measurement strategy for SEP used here increases our understanding of the relationship between SEP and depression among African Americans.

Method

Study Population and Data Collection

Data for this paper were drawn from the National Survey of American Life (NSAL). The NSAL study is part of the National Institute of Mental Health's Collaborative Psychiatric Epidemiology Surveys (CPES), which also includes the National Latino and Asian American Study (NLAAS) and the National Comorbidity Study-Replication (NCS-R). The NSAL dataset contains includes a broad array of variables, including detailed measures of health, mental disorders, psychological distress, social conditions, demographic information, neighborhood conditions, as well as social and psychological protective and risk factors (Sweetman et al., 2006). Prevalence and course, clinical severity, and role impairment associated with mental disorders were also collected.

Study eligibility criteria for participation in the NSAL included that respondents were 18 years of age or older and that they spoke English. The NSAL required utilized additional screening criteria related to respondents' race. Specifically, the NSAL recruited African Americans, Caribbean Blacks, and Whites who resided in neighborhoods that are at least 10% African American at the time of data collection. Caribbean Blacks were defined as respondents who reported being born in a Caribbean country or who reported that they were first or second generation descendants of Caribbean-born parents or grandparents. African American and Black are used interchangeably to describe respondents who were born in the United States and identified themselves as African American or U.S. born Black. Data for the NSAL was collected between 2001 and 2003 and utilized an in home, face-to-face interview design with computer assisted personal interviewing (CAPI) software. The combination of interviewer administration and computer assistance has been shown to reduce the rate of

missing data in comparison to self-administration and respondents provide more robust responses to questions than other modes of interview (Groves et al., 2004). NSAL interviews lasted an average of 2 hours and 20 minutes (Jackson et al., 2004a). Interviewer recruitment, training, and overall project management for the NSAL was coordinated by the University of Michigan's Survey Research Center of the Institute for Social Research.

The final sample of the NSAL includes 3,570 African Americans, 1,623 Caribbean blacks, and 891 non-Hispanic whites, a total sample of 6,082 respondents aged 18 and over. Response rates for the NSAL were 70.7% for the African American sample, 77.7% for Caribbean Blacks, and 69.7% for non-Hispanic Whites. The weighted NSAL sample of African Americans and Caribbean Blacks represents the populations of these racial/ethnic groups in the continental United States. Whites in the NSAL sample represent approximately 14% of the total white population in the United States (Heeringa et al., 2004; Jackson et al., 2004a). Only the African American subsample of the NSAL will be analyzed in this project.

The NSAL utilized a national probability sampling process in which data were collected using a stratified and clustered sample design, and weights were created to account for unequal probabilities of selection, non-response, and post-stratification (Heeringa et al., 2004; Kessler et al, 2004; Sweetman et al., 2006). The sample size for each racial/ethnic group was calculated based on the prevalence estimates of mental disorders in their respective populations but was primarily based upon the rates of native-born African Americans and Whites (Jackson et al., 2004a). Power calculations were performed to obtain a sample size capable of observing differences on numerous

variables including mental health and socio-demographic characteristics between the racial/ethnic groups at the 0.05 probability level or better (Jackson et al. 2004a). This study was approved by the Institutional Review Board at the University of Michigan.

Adult NSAL Re-interview

All NSAL respondents were asked to complete a self-administered questionnaire, the NSAL Adult Re-interview (RIW). In the RIW, among a substantial number of other items, respondents were asked about their wealth. Particularly, respondents were asked about their assets such as housing equity and were asked to provide a dollar amount of all the assets they owned. Respondents were also asked about their sources of debt and asked to provide a dollar amount for cumulative amount of debt they owed. Of the 6,082 NSAL respondents in the original data collection, 3,438 completed the RIW. The overall response rate was 56.5%. The African American response rate was 60%. Respondents who were female, unemployed, more highly educated, and participated in the original NSAL interview post-September 11, 2001, had higher response rates on the RIW. Weights were created and used to account for non-response variations.

Measures

Socio-demographic variables

Several socio-demographic variables are used as controls in regression analyses. Gender is a dummy variable coded into 0 and 1 with female as the reference category. Age is a continuous variable of respondents' reported age at the time of the interview. Marital status is a categorical variable coded into five categories (married, never married, separated, divorced, and widowed) with married as the reference group. Region is another categorical variable coded into four categories, including south, northeast,

midwest, and west with south as the reference category. Household size is a continuous variable that indicates the number of individuals who reside in respondents' households, including adults and children.

SEP Measures

Traditional markers of socioeconomic position have been reliable indicators of health in research, therefore I utilize objective markers of socioeconomic position, specifically income, and education. Household income is a continuous variable measured by respondents' reported household income in U.S. dollars. Respondents' highest level of education was collected as a continuous measure of years of education. Respondents' employment status was coded into three categories: employed, corresponding to respondents who reported that they were currently employed at the time of data collection, unemployed, for respondents who were unemployed but actively seeking employment, and not in workforce, for respondents who were not currently working and were not seeking employment.

Childhood SEP

The highest level of parental education for respondents' parents is utilized to provide information on respondents' childhood SEP. Here, parents' highest level of education is measured by the cumulative number of years of education reported for both respondents' mothers and fathers.

Indicators of Wealth

The wealth measures designated here are net worth, defined as assets minus debts. NSAL respondents were asked to give an estimate of their cumulative assets as well as their estimated debts separately. The net worth variable was created by taking the

difference of assets minus debts. Respondents' reported housing equity, which is also described as home value was the other indicator of wealth examined. Both net worth and reported home value are measured in U.S. dollars.

Depression Measurement

In this paper, depression is indicated by the report of a major depressive episode at any point during respondents' lifetime using the World Mental Health Composite International Diagnostic Interview (Kessler et al., 2005; WHO World Mental Health Survey Consortium, 2004; Wittchen et al., 2001). NSAL developers have devised algorithms to indicate major depressive episode based upon the CIDI. The CIDI is a fully structured lay interview that assesses mental disorders according to both International Classification of Diseases, 10th Revision (ICD-10) and Diagnostic Statistical Manual-IV (DSM-IV) criteria to assess a broad range of psychiatric disorders (Kessler et al., 2005; Williams et al., 2007; Wittchen et al., 2001). The internal consistency of the CIDI has been acceptable across a broad range of studies with Cronbach's alphas ranging between 0.70 and 0.91 (Park et al., 1995).

The CIDI includes question items on respondents' symptoms of depression. For instance, several of the depression screening questions ask respondents if they are sad, have trouble sleeping, or if they have lost interest in things that were once enjoyable for them. Accordingly, the CIDI asks respondents for information concerning the length of time respondents may have felt depressed to assist in the diagnosis of depression. Additionally, respondents are asked to recall their most recent episode of depression as well as the onset of the first episode of depression they ever experienced. Lifetime prevalence of depressive episode is analyzed in this paper.

NSAL developers have devised algorithms to indicate the diagnosis of depression in a dichotomous format. These algorithms take the symptoms respondents endorse as well as the amount of impairment and the length of time respondents report depressed feelings into account in order to assess a diagnosis of depression. The analyses for this paper utilized the dichotomous method of characterizing major depressive episode.

Data Analysis

Researchers have observed that collecting accurate information on private, sensitive survey items from respondents, such as economic information is often particularly challenging (Groves et al., 2004). Item nonresponse can lead to biased assessment and misleading interpretation of the data collected. Multiple imputation of missing data is one approach to handle survey question items that have large amounts of nonresponse. With this method, missing values are replaced by simulated estimates drawn from an appropriate distribution given the observed data. The procedure is repeated multiple times to create multiple complete data sets (Groves et al., 2004). Each data set is then analyzed separately, and the results are combined to conduct statistical inferences about quantities of interest. Here, multiple imputation of missing wealth data, specifically values for reported total debts and assets in the NSAL RIW and respondents' reported home values in the main NSAL, is used to correct for non-response. Multiple imputation was carried out using the SAS multiple imputation procedure (PROC MI) (Yuan, 2001). For cases which had missing data, values were imputed using household income, years of education, current work status, marital status, home ownership, sex, race, U.S. geographic region, number of household members, and age.

All analyses were completed using SAS version 9.2 software (SAS Institute, Cary, NC) which has software capabilities to handle the complex survey design of the NSAL (Heeringa & Liu, 2004). More specifically, the sampling design strategy described earlier does not adhere to the simple random sampling assumptions that default statistical packages utilize, which would result in biased confidence intervals and test statistics if applied to the NSAL sample (Heeringa & Liu, 2004). The analyses described below account for the sample weighting developed by NSAL staff and analyses incorporate the design effects in the estimation of standard errors and test statistics.

Logistic regression models were constructed to determine the relationship between SEP and depression. Logistic regression was used because depression was coded as a dichotomous variable. Bivariate logistic regression models were used to examine the effect of each discrete SEP indicator upon depression. Multivariate logistic regression was used to examine the effect of each discrete SEP indicator upon depression controlling for both sociodemographic factors, including controlling for age, sex, U.S. geographical region, household size, and marital status, as well as each SEP indicator that was utilized in this study. Subsequently, each SEP indicator was added to the baseline model separately to determine the independent affect of each discrete indicator upon depression. This method was used to assess whether there was a relationship between each SEP indicator and depression.

For SEP variables that had a large spread, particularly household income, home value, and net worth, I used the base 10 logarithm transformation to truncate the amount of variance in these SEP variables and to obtain meaningful estimates. Considering that some respondents may have reported negative net worth values and it is impossible to

obtain the logarithm of a negative number, I created a dummy variable to indicate whether or not respondents reported a negative net worth value, which would indicate that they were in debt. Respondents who reported that they were in debt received a value of 1 while those who reported positive net worth values received a value of 0. The base 10 logarithm transformation was then used for respondents who reported a positive net worth value. When net worth was entered into regression models, both the negative net worth dummy indicator, the logarithm of net worth, and the interaction between the negative net worth indicator and the log of net worth were accounted for in analyses.

Results

Table 3.1 displays the sociodemographic characteristics of the NSAL African American sample. The average age of this sample of African Americans is 44.28 and females composed nearly 55% of the sample. Slightly more than 30% of the sample reported that they were married or lived with a romantic partner and about 70% of respondents reported that they were employed. Slightly more than half of the respondents reported that they were home owners. The majority of African Americans in the NSAL sample resided in the South. Table 1 also contains the means for each SEP indicator. Overall, respondents reported an average of 12.85 years of education and \$43,010 in household income. The average combined highest level of education for respondents' parents was 11.27 years. The average net worth (assets minus debts) reported was \$98,329 and the average home value reported was \$97,485.

Table 3.2 presents a correlation matrix displaying the relationship between discrete SEP indicators and depression among African Americans. Several of the SEP measures were significantly correlated, notably the relationship between income and

education ($r=0.33$, $p<0.01$), the association between parents' years of education and respondents' years of education ($r=0.49$, $p<0.01$), and the correlation between parental education and household income ($r=0.19$, $p<0.01$). Depression was significantly related to respondents' reported education ($r=0.04$, $p<0.05$), and parental education ($r=0.09$, $p<0.01$).

Independent Effects of SEP on Depression

Table 3.3 displays the bivariate relationships between each SEP indicator and depression. In this sample, it appears that higher levels of parental education are associated with increased odds of depression (OR= 1.08, $p<.001$) while household income is associated with decreased odds of depression (OR= 0.69, $p<.05$). Respondents who reported that they were not in the workforce reported greater odds of depression (OR= 1.37, $p<.05$). No significant relationships were observed for the other SEP indicators and depression.

Multivariate Analysis

Table 3.4 displays the relationships between discrete SEP indices and depression while controlling for sociodemographic factors, specifically age, sex, marital status, geographic region, and household size. Here, parental education is significantly related to increased odds of depression and explains the largest portion of variance in depression, albeit a relatively small portion overall (pseudo $r^2=0.04$). This table also shows that respondents' reported home values are associated with increased odds of depression (OR= 1.39 $p<.05$). These results indicate that increased levels of parental education and home values are associated with greater odds of depression among African Americans. With

the addition of sociodemographic variables, the previously observed negative relationship between household income and odds of depression disappeared.

Table 3.5 summarizes the results from the multivariate logistic regression models which predicted depression controlling for all sociodemographic factors and all SEP measures. Model one includes only sociodemographic variables predicting depression. Here, it is observed that female sex and widowed marital status were associated with increased odds of depression compared to males and married respondents in this sample. The association between female and widowed respondents and increased odds of depression persisted when all the SEP variables were added, as illustrated in model seven.

In model two, household income is added to the model. The association between income and depression adheres to the same patterned observed in bivariate analyses. There was no significant relationship between household income and depression observed. Model three adds the effects of education and we observe that education is not significantly related to odds of depression. Education was not associated with decreased odds of depression in either bivariate analyses or in multivariate analyses displayed in model three. Model four accounts for the effect of employment status upon depression. Here, we observe that employment status is not related to odds of depression. This represents a change from the bivariate results where we observed that respondents who were not in the workforce reported increased odds of depression compared to those who were employed. So, through the first four models displayed in Table 3.5, we observe that none of the “traditional” indices of SEP are significantly related to odds of depression

among African Americans. Specifically, household income, years of education, and employment status were all unrelated to odds of depression.

Model five accounts for parental education, the measure of childhood SEP utilized in this study. Here we observe that parental education is associated with increased odds of depression among African Americans. We also observe that accounting for parental education reveals a significant relationship between respondents who reported that they were not in the workforce and increased odds of depression. However, this relationship does not hold in models six and seven, which adjust for the effects of net worth and home value respectively. In model six, net worth, defined as reported assets minus debts, is added to the model. We do not observe a significant relationship between net worth and odds of depression. Finally, model seven's multivariate analyses reveal that respondents' reported home value is associated with increased odds of depression controlling for all sociodemographic factors and SEP indicators (OR= 3.05, $p < .05$). This relationship was observed in bivariate analyses and holds even when the effects of the all sociodemographic and SEP variables are entered into the model. While model seven explains the largest portion of variance in depression among African Americans (6%) but the pseudo R^2 illustrates that the addition of home value only explained 1% more variance in depression compared to the models that do not include wealth.

Interestingly, the addition of home value in model seven altered both the magnitude and direction of the relationships between household income and education and depression. Neither household income nor years of education were significantly related to depression in models two through six. However, with the addition of reported

home values in model seven, we observe a significant, negative relationship between household income and depression (OR= 0.55, $p < .001$) as well as a significant negative relationship between years of education and depression (OR= 0.94, $p < .05$). These results demonstrate the importance of accounting for multiple SEP indices when examining the relationship between SEP and depression among African Americans.

Looking at the sociodemographic factors, the only variables that were consistently related to depression across all the models were female sex and widowed marital status. We observe that African Americans who are female and who were widowed reported consistently greater odds of depression than male respondents and those who reported that they were married. Among the SEP indicators, parental education was consistently related to greater odds of depression, even with the addition of wealth indices.

Discussion

The goal of this study was to determine the relationship between SEP and depression among African Americans using a variety of SEP indicators. It was hypothesized that SEP would be positively associated with increased odds of depression among African Americans. The results of this study offer partial support for this hypothesis. It was observed that higher levels of parental education and higher home values were associated with increased odds of depression in this sample of nationally representative African Americans. However, household income and education, often the two most commonly used measures of SEP, predicted decreased odds of depression among African Americans. Interestingly, education and household income only predicted decreased odds of depression once home value, which is not commonly used in health studies, was added to the regression model.

The findings garnered from this study demonstrate that the understanding of the relationship between SEP and depression among African Americans is enhanced by the inclusion of wealth indices and childhood SEP. If this study had only used traditional measures of SEP such as income, education, and employment status, we would have concluded that there was no relationship between SEP and depression. In fact, Williams et al. (2007) reported that income and education were not significantly related to depression. However, the results of the present study reveal that the addition of home value altered the initial relationship observed between income and education and depression, revealing a significant inverse relationship between household income and depression as well as education and depression. Once wealth indicators were included in the regression model, the relationship between income and depression went from statistically insignificant to significantly negative. This raises an important question. How do we understand and explain the effect that including wealth indicators had on changes in the initial findings among income, education, and depression? Clearly, ignoring wealth masked the true relationship between SEP and depression.

Multicollinearity is a common problem within multiple regression analyses and could be explain the results observed in this paper. However, the correlations between home value, education, and income observed in Table 3.2 are quite modest. Additionally, collinearity diagnostics were run to check for problematic multicollinearity in the multiple logistic regression models. The logistic regression models were run while checking for the variance inflation factor and tolerance of each independent variable in the model using the VIF and TOL options in SAS. In detecting multicollinearity, problematic variance inflation factor values are usually above 10 in linear regression and

for logistic regression, values of 2.5 and higher may be problematic. Tolerance is the inverse of the variance inflation factor, so a value of 0.1 or above might indicate multicollinearity (Allison, P.D., 1999). The variance inflation factor for each independent variable was below 2, which strongly indicates that there is little evidence of problematic collinearity, while the tolerance of each independent variable was less than 0.1. Each of the independent variables in the multivariate logistic regression model was well within acceptable ranges, thus indicating that problematic collinearity was not detected in our logistic regression models.

Rather, it seems that home value is a suppressor variable, which would explain why the magnitude and direction of the relationship between both education and depression and income and depression was altered when home value was added to the model. Suppressor variables are described as variables that improve the prediction of a dependent variable (depression) through the addition of a variable which is uncorrelated with the dependent variable but is related to other independent variables (Thomson & Levine, 1997). Looking at Table 3.2, we observe that neither wealth indicator is significantly correlated with depression. However, we note that home value is related to education and household income. Suppression occurs when the suppressor variable is added to the regression equation and there is a significant change in the beta weights of the previously suppressed predictors (Thomson & Levine, 1997). In this study, we see that the addition of home value to the regression equation reveals a significant inverse association between education, income and depression.

Perhaps income and education are only associated with decreased odds of depression when respondents possess wealth. Pearson (2008) argues that including

wealth in health studies could further illuminate the complex relationship between race, SEP, and health. More precisely, researchers have highlighted the importance of accounting for wealth in health studies because wealth represents a more accurate, long-term picture of individuals' economic status than income (Keister & Moller, 2000). The results of this study indicate that it is important to account for the effects of wealth, which are critical in the prediction of depression among African Americans.

Education is sometimes the only measure of SEP in health studies and some researchers argue that it is the most predictive of health outcomes. However, the analyses in this paper show education was not associated with odds of depression independently or when controlling for socio-demographic factors among African American respondents. Similarly, income is regarded as a key SEP variable in psychiatric epidemiologic studies. We observe that income and education are negatively related to depression. These results do not support the hypothesis that increased SEP would be associated with greater odds of depression. Additionally, income was not related to decreased odds of depression when controlling for sociodemographic factors. This finding also challenges the frequently observed finding of increased income being related to lower levels of depression. Additionally, only after the addition of home value did we observe an inverse relationship between education and depression.

It is also important to understand how different indices of wealth operate to affect depression. In this paper, cross-sectional data are used to investigate the relationship between wealth and depression. However, it is possible that there is variation over time within the African American population in terms of how wealth affects depression. Specifically, respondents who engaged in a process of upward mobility, gaining higher

educational and occupational attainment than their parents, and accumulated wealth and home equity could differ significantly from respondents who were born into socioeconomically stable households and maintained the same socioeconomic position as their parents. It is also possible that African Americans who were downwardly mobile compared to their parents and did not accumulate wealth or perhaps incurred higher levels of debt may be more likely to report greater depression.

It was also observed that the childhood SEP indicator, parental education, is related to increased odds of depression. Increased levels of parental education are related to increased odds of depression among respondents as illustrated in Tables 3.3, 3.4, and 3.5. As mentioned earlier, researchers typically find that lower childhood SEP is related to diminished adult health. While this finding supports the hypothesis that greater SEP would be related to increased odds of depression, it is puzzling. It is possible that African Americans who come from families with higher levels of parental education feel more pressure to succeed and to exceed the accomplishments of their families. These external pressures to succeed could develop into depression if aspirations and expectations are not met. This notion is relevant to the effect of goal striving stress on the mental health of African Americans. Goal striving stress is the perceived discrepancy between aspirations and achievement. Goal striving stress has been associated with to lower levels of happiness, life satisfaction, particularly among non-poor African Americans (Sellers & Neighbors, 2008). It is possible that pressure from individuals' families to achieve a particular level of education, occupation, and income could also be associated with increased odds of depression.

Researchers have also highlighted how salient the threat of downward mobility is within the African American community (Conley, 1999; Patillo-McCoy, 1999). A recent article in the New York Times entitled *GM, Detroit and the Fall of the Black Middle Class* displays how the current downsizing of the automobile industry poses as a unique threat that stands to erase the financial gains and lifestyles that many African Americans have achieved due to the collapse of the automobile industry (Mahler, 2009). The main subject of the article chronicles the life of Marvin, a college drop out who is a recently laid off factory worker at General Motors. His mother attended college and while his father was also an auto plant worker, he received strong encouragement from both his parents to attend college. In fact, as they are interviewed, they voice disappointment with Marvin because he did not finish college and is at the mercy of the unstable automobile industry to maintain the lifestyle he and his family currently live. Marvin too expresses regret that he did not achieve a college degree. Although Marvin's story is one in a newspaper and not a journal article, it is possible that he not only faces economic stress as he will likely struggle to find a new job but he also likely deals with stress derived from the failure to achieve and maintain a similar lifestyle that his parents provided for him. He also failed to live up to their expectations. It would be interesting to investigate how parental education and other markers of childhood SEP could affect rates of depression among African Americans. Another future direction is to examine the difference in the amount of education respondents report and that of their parents. We can then observe whether African Americans who have lower levels of education, compared to their parents, report greater odds of depression than African Americans who report equal or greater levels of education than their parents.

Most Americans derive the majority of their wealth from their home values (Conley, 1999; Gordon Nembhard, 1999; Shapiro, 2004). It would seem that increased home values would protect against depression, yet in this sample, greater home values were associated with increased odds of depression. One potential explanation for the association between home values and increased odds of depression is that African Americans who have higher home values may live in areas that have more White residents. This phenomenon could increase the home values of African Americans but may also increase respondents' exposure to racial discrimination due to them residing in more racially integrated areas. Researchers have noted that African Americans of higher SEP are more likely to live and work in integrated settings and a number of studies conclude that higher SEP is associated with increased exposure to racial discrimination (Brayboy Jackson & Stewart, 2003; Forman, 2003, Williams, 2003).

Beyond determining whether simply including measures of wealth and childhood SEP increases our understanding of the relationship between SEP and depression, the overarching question of this chapter's analysis is whether SEP protects African Americans against depression. Researchers typically observe inverse relationships between SEP and depression in previous studies. The results of this study indicate that higher SEP does not provide uniform protection against depression for African Americans. Specifically, higher childhood SEP, measured by parental education, and higher wealth (home value) increased the odds of depression among African Americans. Results garnered from this study complicate the notion that improved SEP among African Americans leads to improved mental health and highlight the importance of using varied measures of SEP in predicting depression.

This study has several key limitations that should be acknowledged. First, the dataset utilized in this study is cross sectional, thus limiting the ability to make any causal claims about the relationships observed between SEP and depression in this study. Additionally, the SEP information collected as well as the endorsement of depressive symptoms and other diagnostic criteria were based upon self-reports. While this is largely true of most public health studies, it notable that respondents are often reluctant to disclose personal financial information such as income and wealth. Additionally, the utilization of the CIDI to represent cases of depression could have missed cases of depression that a clinical evaluation may have uncovered. It is also possible that the relationship between SEP and depression could have been influenced by social desirability, particularly in the case of answering questions about mental health (Muntaner et al., 1998). Muntaner et al. juxtapose two ways that SEP and social desirability could impact respondents' answers to mental health questions. On one hand, it is possible that respondents of higher SEP could have been more aware than lower SEP respondents as to what are considered the most socially desirable responses to questions concerning mental health, but on the other hand higher SEP respondents could be more informed about psychopathology, thus increasing their likelihood to report psychiatric symptoms. Two additional limitations that one should note about this study is that it did not include an in depth investigation of gender. Future studies should certainly consider more closely the role that gender may play in the development of depression among African Americans. As this study focused exclusively on African Americans, future studies should also examine the relationship between SEP and depression among other racial/ethnic groups. It is also possible that the imputation method utilized created

inaccurate estimates of wealth because the missing values for study respondents may not have been missing at random, a key assumption in the imputation of missing data. In this sample, it is possible that respondents who had higher levels of wealth were more likely to report their wealth holdings, which would artificially inflate wealth estimates in this study. Additionally, the imputation method used to derive estimates of assets and debts is based upon the responses that were actually collected for SEP values such as household income, education, employment status, and home equity. It is possible that the imputed values of net worth are not independent and simply reflect the traditional measures of SEP. One potential approach to obtain more accurate wealth measures may to follow the comprehensive wealth measurement strategy utilized in the Panel Survey of Income Dynamics (PSID). The PSID includes information on respondents' real estate, including housing equity, equity derived from motor vehicles, cash savings, time and savings deposits as well as money market accounts, bonds, estimates of life insurance plans, values of pension plans, corporate stocks and mutual funds, the values of farms and/ or businesses and trust funds. Debts are defined by mortgage debt, consumer debt, including auto loans, and other debt. The NSAL includes many of the assets and debt categories found in the PSID. The NSAL asks respondents to report whether they or their families own real estate (aside from their primary residence), cars or trucks, motor homes, trailers, boats, shares from stocks, mutual funds, and individual retirement accounts, checking and savings accounts, and life insurance policies. For debts, respondents are asked if they or their families have auto loans, credit card debts, student loans, medical bills, legal bill, and loans from relatives. One major difference between the two approaches is that while the PSID asks respondents to estimate the actual amount

of both positive and negative balances for each asset and debt category. The PSID researchers constructed a net worth variable that is the sum of all asset variables minus debt value. Additionally, they account for the value of home equity. Conversely, the NSAL simply asks respondents to respond yes or no to whether they own certain assets or owe debt categories. They are then asked to estimate the amount of assets and debts they have. The NSAL approach introduces a greater amount of measurement error to the conceptualization of net worth because it relies upon respondents' ability to accurately recall the amounts of assets they own and debts they owe. The PSID approach is likely more accurate because it allows for respondents to estimate each category of assets and debts individually and an algorithm was developed to assess the net worth of individuals. This would reduce the amount of measurement error and may yield a more accurate assessment of wealth for respondents than is found in the NSAL.

Evidence from previous studies that have examined the relationship between SEP and depression among African Americans have been murky. Results from this study offer new evidence that wealth is a significant predictor of depression for African Americans, which differs from findings reported previously (e.g., Rodriguez et al., 1999). As a result, researchers have begun to ask whether the process of upward mobility could be deleterious to the mental and physical health of African Americans (Cole & Omari, 2003; Colen et al. 2006; Feagin & Sykes, 1994; Forman, 2003), describing unique stressors that threaten the mental health of African Americans of higher SEP such as increased exposure to racial discrimination, reduced access to social support networks, and diminished returns on human capital investments. These "hidden costs of upward mobility" may play a role in the development of depression and other mental disorders

among African Americans of higher SEP and call for public health researchers to consider the unique social position that African Americans of higher SEP hold. For instance, researchers note that education is the primary vehicle that African Americans use to achieve upward social mobility and middle class status in the United States. However, scholars have illustrated that the more education African Americans gain, the more aware they become of structural barriers that impeded their progress and ensure that they will not see the same returns on human capital investments that Whites receive (Cose, 1993; Feagin & McKinney, 2003; Young, 1999). The unique stressors that African Americans face as they accumulate greater levels of SEP pose an important area for public health researchers to consider in the examination of mental health among African Americans, particularly exposure to racial discrimination. The next chapter will investigate whether SEP exposes African Americans to unique stressors such as racial discrimination and utilize high-effort coping, operationalized as mental health costs of upward mobility. This will provide a better understanding of the results garnered in this chapter.

In closing, the results of this study illustrate that public health researchers should consider incorporating various measures of SEP, in addition to traditional factors such as income and education, in order to gain a fuller understanding between SEP and depression among African Americans. Further, results from this study challenge the notion that economic resources are the lone answer to the elimination of disease among African Americans. Indeed, there are unique cultural and social factors that may undermine the benefit of increased levels of SEP among African Americans and actually threaten the mental health of African Americans. Results of this paper suggest that

researchers should continue to examine the unique socially patterned stressors that both African Americans of higher SEP and African Americans who engage in the process of upward social mobility encounter and could diminish the protective effects of increased SEP.

Table 3.1 Sociodemographic Characteristics of the NSAL African American Sample

Variable	M (SE); % (n)
Total	3053
Age	44.28 (0.89)
Female	54.51 (1942)
Household Size	2.7 (0.06)
Household Income	43010 (1866)
Education (Years)	12.85 (0.11)
< High School	20.1 (748)
High School Grad	34.2 (1116)
College Grad	25.69 (706)
Grad/ Professional School	20.1 (483)
Parental Education	11.27(0.09)
Net Worth	98329 (7579)
Home Value	97485 (4559)
Home Owner	54.59 (1517)
Marital Status	
Married/ Partner	30.43 (969)
Never Married	42.95 (1079)
Divorced	13.6 (458)
Separated	7.61 (304)
Widowed	5.4 (229)
Employment Status	
Employed	70.37 (2020)
Unemployed	7.41 (289)
Not in Labor Force	22.22 (736)
Region	
Northeast	22.1 (433)
Midwest	18.62 (538)
West	12.1 (244)
South	47.24 (1838)

Table 3.2 Correlations, Means and Standard Deviations in the NSAL African American Subsample

Variable	1	2	3	4	5	6
1) Education	-					
2) Household Income	0.33**	-				
3) Parental Education	0.49**	0.19**	-			
4) Home Value	0.24**	0.29**	0.16**	-		
5) Net Worth	0.07**	-0.002	0.10**	0.02	-	
6) Depression	0.04*	0.004	0.09**	0.03	0.02	-
Mean	12.45	34742	10.98	92628	82525	0.13
Standard Deviation	2.63	38470	3.53	131214	181454	0.33
<i>N</i>	3053	3053	3053	3053	3053	3053

* Significant at $p < .05$. ** Significant at $p < .01$

Table 3.3 Bivariate Major Depressive Episode by SEP Variables

Variable	OR (95% CI)	N	Pseudo R ²
Parental Education (Years)	1.08 (1.02- 1.14)**	2268	0.01
Household Income (log)	0.69 (0.52- 0.94)*	2268	0.01
Education (Years)	1.00 (0.95- 1.05)	2268	0.00
Employment Status (ref= Employed)		2268	0.004
Not in Workforce	1.37 (1.03- 1.82)*	2268	
Unemployed	1.17 (0.73- 1.88)	2268	
Home Value (log)	1.26 (0.96- 1.64)	2268	0.01
Net Worth (log)	1.21 (0.92- 1.59)	2268	0.002

* Significant at p <.05. ** Significant at p<.01.

Table 3.4 Bivariate Major Depressive Episode by SEP Variables

Variable	OR (95% CI)	N	Pseudo R ²
Parental Education (Years)	1.09 (1.03- 1.16)**	2268	0.04
Household Income (log)	0.77 (0.53- 1.12)	2268	0.03
Education (Years)	1.01 (0.96- 1.07)	2268	0.03
Employment Status (ref= Employed)		2268	0.03
Not in Workforce	1.33 (0.94- 1.89)	2268	
Unemployed	1.07 (0.67- 1.72)	2268	
Home Value (log)	1.39 (1.03- 1.89)*	2268	0.03
Net Worth (log)	1.19 (0.88- 1.61)	2268	0.03

Adjusted for age, sex, marital status, geographic region and household size

* Significant at p <.05. ** Significant at p<.01.

Table 3.5 Major Depressive Episode by Sociodemographic Characteristics and Objective SEP Variables

Variable	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)
Model	1	2	3	4
Age	1.00 (0.99- 1.01)	1.01 (0.99- 1.01)	1.01 (0.99- 1.02)	1.01 (0.99- 1.01)
Female	1.59 (1.13- 2.23)*	1.56 (1.10- 2.20)*	1.54 (1.09- 2.17)*	1.53 (1.09- 2.15)*
Marital Status (ref= Married)				
Never Married	0.89 (0.65- 1.22)	0.96 (0.69- 1.34)	0.91 (0.70- 1.36)	0.95 (0.69- 1.31)
Separated	0.87 (0.42- 1.81)	0.87 (0.42- 1.81)	0.98 (0.43- 1.93)	0.81 (0.38- 1.71)
Divorced	1.07 (0.62- 1.84)	1.10 (0.64- 1.88)	1.09 (0.64- 1.88)	1.06 (0.62- 1.79)
Widowed	1.77 (1.12- 2.80)*	1.78 (1.12- 2.81)*	1.83 (1.14- 2.94)*	1.79 (1.13- 2.83)*
Region (ref= South)				
Northeast	1.51 (0.96- 2.36)	1.51 (0.96- 2.39)	1.51 (0.96- 2.37)	1.51 (0.96- 2.36)
Midwest	1.43 (0.99- 2.04)	1.41 (0.99- 2.01)	1.39 (0.97- 1.99)	1.39 (0.98- 1.98)
West	1.03 (0.52- 2.05)	1.04 (0.54- 2.02)	1.02 (0.53- 1.98)	1.01 (0.52- 1.94)
Household Size	1.04 (0.95- 1.14)	1.04 (0.95- 1.14)	1.05 (0.96- 1.15)	1.06 (0.97- 1.16)
Household Income (log)		0.77 (0.53- 1.12)	0.69 (0.48- 1.01)	0.73 (0.49- 1.08)
Education (Years)			1.04 (0.99- 1.09)	1.05 (0.99- 1.09)
Employment Status (ref= Employed)				
Not in Workforce				1.29 (0.93- 1.81)
Unemployed				1.02 (0.63- 1.65)
Parental Education (Years)				
Net Worth (log)				
Home Value (log)				
Pseudo R ²	0.03	0.03	0.03	0.03

* Significant at the p <.05. ** Significant at the p<.01.

Table 3.5 (cont.) Major Depressive Episode by Sociodemographic Characteristics and Objective SEP Variable

Variable	OR (95% CI)	OR (95% CI)	OR (95% CI)
Model	5	6	7
Age	1.01 (0.99- 1.02)	1.01 (0.99- 1.02)	1.00 (0.99- 1.01)
Female	1.56 (1.11- 2.19)*	1.57 (1.10- 2.23)	1.60 (1.12- 2.29)
Marital Status (ref= Married)			
Never Married	1.08 (0.78- 1.48)	1.08 (0.78- 1.48)	1.05 (0.75- 1.46)
Separated	0.97 (0.46- 2.08)	0.97 (0.46- 2.06)	0.99 (0.46- 2.17)
Divorced	1.22 (0.73- 2.03)	1.22 (0.73- 2.03)	1.22 (0.73- 2.06)
Widowed	1.99 (1.22- 3.26)*	2.02 (1.24- 3.28)	2.13 (1.31- 3.46)
Region (ref= South)			
Northeast	1.36 (0.87- 2.13)	1.34 (0.83- 2.14)	1.26 (0.81- 1.97)
Midwest	1.31 (0.92- 1.86)	1.31 (0.92- 1.86)	1.24 (0.87- 1.75)
West	0.93 (0.50- 1.74)	0.94 (0.50- 1.74)	0.64 (0.33- 1.21)
Household Size	1.04 (0.95- 1.14)	1.04 (0.94- 1.14)	1.05 (0.96- 1.16)
Household Income (log)	0.69 (0.47- 1.03)	0.70 (0.47- 1.04)	0.55 (0.35- 0.85)*
Education (Years)	0.98 (0.93- 1.04)	0.98 (0.93- 1.04)	0.94 (0.88- 0.99)*
Employment Status (ref= employed)			
Not in			
Workforce	1.41 (1.01- 1.96)*	1.39 (0.99- 1.97)	1.24 (0.86- 1.78)
Unemployed	1.05 (0.64- 1.70)	1.04 (0.64- 1.69)	0.97 (0.61- 1.56)
Parental Education (Years)	1.12 (1.05- 1.19)**	1.12 (1.05- 1.19)**	1.11 (1.04- 1.19)**
Net Worth (log)		1.09 (0.81- 1.48)	1.08 (0.80- 1.47)
Home Value (log)			3.05 (1.13- 8.24)*
Pseudo R ²	0.05	0.05	0.06

* Significant at the $p < .05$. ** Significant at the $p < .01$.

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Chapter IV

Costs of Mobility: Examining the Effects of Racial Discrimination and John Henryism on Depression among African Americans

Although an inverse association between socioeconomic position (SEP) and depression is frequently observed among most racial groups, African Americans experience unique stressors that are patterned by SEP. As a result, a number of researchers have begun to consider whether there are mental health risks associated with increased levels of SEP for African Americans (Cole & Omari, 2003). For instance, several studies indicate that African Americans of greater SEP incur increased exposure to racial discrimination (Brayboy Jackson & Stewart, 2003; Forman, 2003; Williams, 2003). Subsequently, exposure to racial discrimination is related to both increased levels of depressive symptoms (Brody et al., 2006) as well as increased odds of depression (Kessler et al., 1999). These findings suggest that a more comprehensive evaluation of the unique stressors that African Americans face as well as the coping mechanisms that African Americans utilize. It is also important to examine how these stressors and coping responses are related to depression. The first goal of this paper is to explore what other researchers have termed as "mental health costs of upward mobility" (Cole & Omari, 2003). The second goal is to determine whether these "costs of upward mobility" are associated with increased odds of depression among African Americans. In this chapter, mental health costs of upward mobility are defined as exposure to racial discrimination

and the utilization of high-effort coping. High-effort coping is conceptualized and measured by Sherman James' John Henryism construct, which is explained below. This paper will determine whether greater levels of SEP are associated with increased reports of racial discrimination and utilization of high-effort coping among African Americans.

Stress and Coping

Exposure to stress is an important factor in the development of mental disorders within the public health literature (Mirowski & Ross, 2003; Turner & Lloyd, 2004). The transactional model of stress and coping has been widely utilized in public health research to model the stress process. Wenzel and associates (2002) state that stressful experiences are "person-environment transactions," in which the impact of an external stressor is mediated by a person's appraisal of the stressor and the psychological, social, and cultural resources at their disposal (Wenzel, Glanz, & Lerman, 2002). Although it is difficult to evaluate individual level appraisal of stressful situations, researchers have highlighted two components of appraisal, which are primary and secondary (Lazarus & Folkman, 1984). Primary appraisal is described as a person's assessment of the severity or acuteness of specific stressful events (Lazarus & Folkman, 1984; Wenzel et al., 2002). For instance, while some individuals may interpret an event as highly stressful and may require many resources to address a particular stressor, others may encounter the same situation and interpret that event as a benign problem. Secondary appraisal is operationally defined as an assessment of a person's coping resources and options (Wenzel et al., 2002). Wenzel and colleagues (2002) suggest that individuals evaluate their perceived control over the threat as well as their perceived control over emotional reactions during the secondary appraisal process. To date, researchers have not

developed instruments to assess individual appraisal of stressors that can be broadly generalized (Cohen, 1995).

Racial Discrimination

Within the public health literature, racial discrimination is considered to be a unique, socially patterned stressor thought to play an important role in the mental health of African Americans and other racial/ethnic minority groups in the United States (Kessler et al., 1999; Williams & Chung, 1997; Williams, Yu, Jackson, & Anderson, 1997; Williams, Neighbors, & Jackson, 2003). A number of studies suggest that African Americans, particularly those who possess greater levels of SEP, contend with numerous stressors related to racial discrimination manifested in many forms, including racial residential segregation, diminished returns for investments in human capital, and limited advancement in occupational settings, (Cole & Omari, 2003; Forman, 2003; Hochschild, 1995; Williams, 2003). Feagin and McKinney (2003) argue that the racial discrimination faced by African Americans from coworkers and employers often leads to increased stress, asserting that everyday experiences of discrimination can generate pain, frustration, anger, and even mental illness (Feagin & McKinney, 2003). The unique social position of African Americans of higher SEP likely facilitates more frequent interaction with Whites in racially integrated settings, especially in the workplace, and subsequently may lead to more exposure to racial discrimination (Feagin, 1991; Feagin & McKinney, 2003; Patillo-McCoy, 1999).

Clark and colleagues (2002) highlight the importance of recognizing racial discrimination as a unique stressor that African Americans encounter (Clark, Anderson, & Williams, 2002). As aforementioned, researchers have shown that racial

discrimination is related to increased odds of depression (Kessler et al., 1999). Kessler et al. (1999) further argue that the experience of racial discrimination is highly stressful, ranking in significance with other major stressful life events such as job loss, divorce, and death of a loved one. Williams (2003) argues that racial discrimination is an added burden that African Americans face, and he posits that perceptions of discrimination are stressors that can adversely affect both physical and mental health. Indeed, researchers have found empirical associations between perceived discrimination and impaired psychological well-being, depression, and decreased self-esteem (Karlsen & Nazroo, 2002; Williams et al., 1992; Williams et al., 1997), yet there have only been a paucity of studies that have explored the relationship between racial discrimination and depression.

High-effort Coping

According to the stress paradigm, coping is an important predictor of mental illness. James (2002) argues that African Americans utilize high-effort coping to handle stressors that could be perceived as beyond an individual's control and ability to alter (James, 2002). In this paper, high-effort coping is operationally defined as *John Henryism* (James, 2002; James et al., 1983; James, 1994). John Henryism is a strong behavioral predisposition to cope actively with psychosocial environmental stressors (James, Hartnett, & Kalsbeek, 1983; James et al., 1992). James posits that John Henryism especially affects poorer African Americans, given their increased exposure to psychosocial stressors, such as chronic financial strain and job insecurity (James et al., 1992). Subsequently, James argues that African Americans could respond to these noxious conditions with high-effort coping (James, 2002). James further describes John Henryism as...

...a cultural adaptation on the part of newly freed people faced with the daunting task of creating for themselves, an American identity. To be authentic that identify had to make possible a coherent expression of core American values such as hard work, self-reliance, and freedom.

James initially posited that John Henryism would interact with low SEP to affect the health of African Americans (James et al., 1987; Merritt et al., 2004). Indeed, poorer African Americans encounter and cope with substantial adversity. However, high-effort coping strategies may also be adopted among African Americans of higher SEP since they may appraise stressful situations related to racial discrimination, such as job loss or being passed over for promotion, as situations that can be altered by hard work (Geronimus & Thompson, 2004). Additionally, it is possible that racial barriers that African Americans of greater SEP encounter are structural in nature. Thus high-effort coping engaged in on the part of individuals may not be effective in addressing the true nature of the barriers that African Americans face as they attempt to ascend the socioeconomic hierarchy in the United States. This paper investigates how economic resources, thought to be protective against stress, could influence African Americans to employ high-effort coping as a way to cope with racial discrimination.

It seems that the majority of existing studies that examine John Henryism have focused on poor or low-income samples. Increasingly, researchers have begun to examine the effects of John Henryism among African Americans of greater higher SEP. Light and colleagues (1995) conducted a study to determine whether high job status and John Henryism were related to hypertension among a sample of African Americans and Whites (Light et al., 1995). They found that the majority of African Americans and White women who held high status jobs reported higher John Henryism scores compared

to White men who held high status jobs. Additionally, Light and associates found that African Americans who held high status jobs and were more likely to utilize high-effort coping had greater diastolic and systolic blood pressure levels. In another study conducted by Bonham and associates (2004), they examined high SEP African American men to explore the relationship between John Henryism and self-rated health. They found a positive relationship between John Henryism and higher self-rated physical health among high SEP African American men. Bonham, Sellers, and Neighbors note that most studies find that SEP protects African Americans from the negative health affects associated with John Henryism. However, they conclude that for the high SEP African American men in their study, John Henryism is beneficial to health. It is important to continue to expand explorations of John Henryism across SEP levels, paying special attention to make sure adequate numbers of higher SEP African Americans are sampled in studies (Bonham, Sellers, & Neighbors, 2004; Light et al.,1995). It is also important to examine how John Henryism operates across different levels of SEP among African Americans.

Additionally, most studies have examined John Henryism in relation to hypertension. In a recent study, Neighbors, Njai, and Jackson, (2007) explored the relationship between John Henryism and depressive symptoms using the National Survey of American Life. They found that John Henryism was not associated with depressive symptoms among African Americans. While Neighbors and colleagues did not find a relationship between John Henryism and depressive symptoms, there have not been similar examinations that study the link between John Henryism and depression. One of

the goals of this chapter is to determine whether African Americans who report increased utilization of high-effort coping increases odds of depression.

Costs of Upward Mobility

Researchers have begun to ask whether the process of upward mobility could be deleterious to the mental and physical health of African Americans (Cole & Omari, 2003; Colen et al., 2006; Feagin & Sikes, 1994; Forman, 2003). A number of researchers argue that middle class African Americans are exposed to greater levels of racial discrimination than working class or poor African Americans (Forman, Williams, & Jackson, 1997; Forman, 2003; Patillo-McCoy, 1999). Cole and Omari (2003) describe hidden costs of mobility that middle class African Americans pay as painful experiences with racial discrimination and isolation from protective social support networks. Middle class African American informants in Ellis Cose's *The Rage of a Privileged Class: Why Are Middle Class Blacks Singing the Blues*, recount painful experiences of racial discrimination that has both affected them emotionally and has stunted the growth of their careers (Cose, 1993). Cose's informants are particularly troubled because despite their advanced degrees from elite educational institutions, they still regularly encounter Whites who are hostile towards them. Cose's informants describe encounters in which their White colleagues have challenged their competence or who have worked to make them feel isolated and unwelcome. However, comments from Cose's informants are echoed in the qualitative work of Feagin and McKinney (2003) who interview African American respondents that describe distress and pain in their regular noxious, discriminatory workplace encounters with White co-workers (Feagin & Sikes, 1994). It seems that these kinds of discriminatory experiences would threaten the mastery and self-

esteem, two established risk factors for depression, of higher SEP African Americans, thereby increasing their vulnerability to depression (American Psychiatric Association, 2000; USDHHS, 2001). Feagin and McKinney (2003) further argue that the discrimination faced by African Americans from coworkers and employers often leads to increased, unhealthy stress, asserting that everyday experiences of discrimination can generate pain, frustration, anger, and even physical illness (Feagin & McKinney, 2003).

Carpiano, Link, and Phelan (2008) describe the relative deprivation and hierarchy stress argument, which downplays the material factors that SEP provides and emphasizes the social comparison aspect that different levels of education, income, and occupational status may provide. From the relative deprivation and hierarchy stress argument, income may be seen as a way of keeping score in status competitions. They note findings from the seminal Whitehall study which indicate that even among individuals at the top of the occupational hierarchy in the British civil service, researchers still observed health advantages that the highest ranked individuals enjoyed over the second highest ranked group. It is likely that the SEP-health gradient is most obvious when comparing poor people to those who are better off. However, the results of the Whitehall study demonstrate that there are observable health differences, even at the top of the SEP hierarchy. Considering these observations, it is possible that African Americans who possess higher levels of SEP may still be vulnerable to the development of depression. For instance, Williams (2003) suggests that the expectations of African Americans are often unfulfilled because their investments in education do not provide parallel gains in income that Whites enjoy (Williams, 2003). He further argues that this may be a unique source of stress and alienation for African Americans. Indeed, researchers have

documented how African Americans struggle with the disparity between their lifestyle expectations and the position they occupy. For instance, Sellers and Neighbors (2008) argue that goal striving stress, the perceived discrepancy between aspirations and achievement, negatively affects the mental health of African Americans. Indeed, in their 2008 study, Sellers and Neighbors found that high levels of goal striving stress were related to lower levels of happiness, life satisfaction, self-esteem, and higher levels of psychological distress among African Americans respondents drawn from the National Survey of Black Americans. Moreover, Sellers and Neighbors found that the relationship of goal striving stress to happiness and life satisfaction varied as function of poverty status. Specifically, they found that when goal striving stress was high, non-poor African Americans reported lower levels of life satisfaction and happiness than poor African Americans.

The findings on goal-striving stress are relevant to the rising expectations hypothesis (Geschwender, 1964; Williams, 2003) and Dressler's status incongruence hypothesis (Dressler, 1991). The rising expectations hypothesis asserts that increasing expectations will lead to dissatisfaction and attempts to change the social order. It is possible that African Americans who make investments in human capital through education and earn increases in income and occupational prestige may develop higher expectations for a certain standard of living. However, if expectations are not realized, the resultant inconsistency may increase levels of distress. Dressler posits that the discrepancy between one's lifestyle and economic status, or "status incongruence" can lead to conflict and stress, which may also relate to mental disorders such as depression. These constructs that examine the discrepancy between aspirations and achievements

(goal striving stress) as well as status incongruence may represent unique costs of upward mobility that threatens the mental health of African Americans.

Sellers (2001) describes social mobility as movement which places individuals into a social world that significantly differs from the one into which they was socialized during childhood, noting that mobility takes place over time and space and involves trajectories such as downward relative to one's parents. African Americans of higher SEP are exposed to unique psychosocial stressors throughout the lifecourse as they struggle to achieve greater socioeconomic resources in the United States (Cole & Omari, 2003; Colen et al., 2006). Hertz (2005), using data drawn from the Panel Survey of Income Dynamics (PSID) revealed that 42% of African Americans born into the bottom tenth of the income distribution remained in that same income bracket as adults. Importantly, many African Americans begin their lives in poverty (Corcoran & Chaudry, 1997). In 2006, a third of African Americans under the age of 18 were living in poverty. Until 1996, the percentage of African Americans under the age of 18 living in poverty was consistently 40% or greater (U.S. Census Bureau, 2009). Nonetheless, there is little information about how many African Americans engage in the process of upward social mobility. So it important to understand how not only childhood exposures affect the mental health of African Americans but also how the process of upward social mobility could either threaten or protect African Americans against the development of mental disorders.

There are certainly advantages that upward social mobility brings to African Americans in spite of the challenges that the process of upward mobility pose to African Americans. At bare minimum, increases in socioeconomic resources provide protection

from economic strains and this protection may provide a buffer against the development of depression and other diseases as researchers typically find that there is an inverse association between SEP and depression (Dohrenwend et al., 1992; Williams, Takeuchi, & Adair, 1992). Scholars also note that, there is often a sense of achievement and personal satisfaction expressed among African Americans who have found success in a society where the odds are steeply stacked against them (Neckerman, Carter, & Lee, 1999). However, African Americans of higher SEP may also pay mental health costs of upward mobility such as increased exposure to racial discrimination, the utilization of high-effort coping and perhaps even stress derived from goal striving stress and lifestyle incongruence that could undermine the health protective benefits of SEP for African Americans.

The Present Research

The first goal of this paper is to explore "mental health costs of upward mobility" among African Americans (Cole & Omari, 2003). The two research questions aimed at achieving this goal are: 1) what is the relationship between SEP and racial discrimination among African Americans and 2) what is the relationship between SEP and high-effort coping (John Henryism) among African Americans. It is hypothesized that greater levels of SEP will be positively associated with reports of racial discrimination and high-effort coping among African Americans.

The second goal of this paper is to determine whether these "costs of upward mobility," operationalized as exposure to racial discrimination and utilization of high-effort coping, are associated with increased odds of depression among African Americans. Here, it hypothesized that both racial discrimination and high-effort coping

will increase the odds of depression among African Americans. It is not expected that either exposure to racial discrimination or utilization of high-effort coping will alter the relationship between SEP and depression. Although racial discrimination and high-effort coping are important factors to consider and may certainly contribute to African Americans' vulnerability to depression, it is not expected that these factors will eliminate the relationship between SEP and depression.

Method

Study Population and Data Collection

Data for this paper were drawn from the National Survey of American Life (NSAL). The NSAL study is part of the National Institute of Mental Health's Collaborative Psychiatric Epidemiology Surveys (CPES), which also includes the National Latino and Asian American Study (NLAAS) and the National Comorbidity Study-Replication (NCS-R). The NSAL dataset contains includes a broad array of variables, including detailed measures of health, mental disorders, psychological distress, social conditions, demographic information, neighborhood conditions, as well as social and psychological protective and risk factors (Sweetman et al., 2006). Prevalence and course, clinical severity, and role impairment associated with mental disorders were also collected.

Study eligibility criteria for participation in the NSAL included that respondents were 18 years of age or older and that they spoke English. The NSAL required utilized additional screening criteria related to respondents' race. Specifically, the NSAL recruited African Americans, Caribbean Blacks, and Whites who resided in neighborhoods that are at least 10% African American at the time of data collection.

Caribbean Blacks were defined as respondents who reported being born in a Caribbean country or who reported that they were first or second generation descendants of Caribbean-born parents or grandparents. African American and Black are used interchangeably to describe respondents who were born in the United States and identified themselves as African American or U.S. born Black. Data for the NSAL was collected between 2001 and 2003 and utilized an in home, face-to-face interview design with computer assisted personal interviewing (CAPI) software. NSAL interviews lasted an average of 2 hours and 20 minutes (Jackson et al., 2004). Interviewer recruitment, training, and overall project management for the NSAL was coordinated by the University of Michigan's Survey Research Center of the Institute for Social Research.

The final sample of the NSAL includes 3,570 African Americans, 1,623 Caribbean Blacks, and 891 non-Hispanic whites, a total sample of 6,082 respondents aged 18 and over. Response rates for the NSAL were 70.7% for the African American sample, 77.7% for Caribbean Blacks, and 69.7% for non-Hispanic Whites. The weighted NSAL sample of African Americans and Caribbean Blacks represents the populations of these racial/ethnic groups in the continental United States. Whites in the NSAL sample represent approximately 14% of the total white population in the United States et al., 2004). Only the African American subsample of the NSAL is analyzed in this paper.

Adult NSAL Re-interview

All NSAL respondents were asked to complete a self-administered questionnaire, the NSAL Adult Re-interview (RIW). The RIW contains a number of variables and instruments central to this paper. First, The RIW includes the John Henryism Active Coping scale developed by Sherman James, which was used to measure high-effort

coping. This scale is described in further detail below. Respondents were also asked to report important SEP variables such as assets, debts, and home equity. Of the 6,082 NSAL respondents in the original data collection, 3,438 completed the RIW. The overall response rate was 56.5%. The African American response rate was 60%. Respondents who were female, unemployed, more highly educated, and participated in the original NSAL interview post-September 11, 2001, had higher response rates on the RIW. Weights were created and used to account for these non-response variations.

Measures

Socio-demographic variables

Several sociodemographic variables are used as controls in multivariate regression analyses. Gender is a dummy variable coded into 0 and 1 with female as the reference category. Age is a continuous variable of respondents' reported age at the time of the interview. Marital status is a dummy variable coded into five categories (married, never married, separated, divorced, and widowed) with married as the reference group. Geographic region is another dummy variable coded into four categories, including south, northeast, midwest, and west with south as the reference category. Household size is a continuous variable that indicates the number of individuals who reside in respondents' households, including adults and children. Respondents' employment status was coded into three categories: employed, corresponding to respondents who reported that they were currently employed at the time of data collection, unemployed, for respondents who were unemployed but actively seeking employment, and not in workforce, for respondents who were not currently working and were not seeking employment.

Measures of SEP

Household income is a continuous variable measured by respondents' reported household income in U.S. dollars. Respondents' highest level of education was collected as a continuous variable as well as a categorical measure of years of education was collected. Respondents' education levels were categorized into the following: some high school, high school graduate, college graduate, and graduate/ professional school degree. Respondents' parental education is measured by the cumulative number of years both respondents' mothers and fathers reported. This measure is used as an indicator of childhood SEP. Two indicators of wealth were utilized in this study. Net worth was defined as assets minus debts. Respondents' reported housing equity, which is also described as home value was the other indicator. Both net worth and reported home value are measured in U.S. dollars.

Racial Discrimination Measurement

The NSAL measures racial discrimination using the everyday discrimination scale and the major discrimination scale proposed by Williams et al. (1997). The everyday discrimination scale is comprised of ten domains that correspond to the stem question, "In your day-to-day life how often have any of the following things happened to you?" Respondents were asked to recall instances of discrimination within the past 12 months and over their life course. The major discrimination scale is composed of nine domains, each asking respondents if they have ever been treated unfairly in a major life event such as being unfairly fired from a job. In the NSAL, this measure includes lifetime, 12-month, and past month recollections of major experiences of discrimination.

High-effort Coping Measurement

James (1983) developed a scale to assess high effort coping called the John Henryism Scale for Active Coping (JHAC12). The scale is comprised of 12 items with higher scores indicating more high effort coping when faced with difficult psychosocial stressors. The question stems include items such as the following: "Sometimes I feel that if anything is going to be done right, I have to do it myself; I don't let my personal feelings get in the way of doing a job." Respondents are asked to use the following five response items: "Completely False; Somewhat False; Somewhat True; Completely True" and "Don't Know." In studies conducted thus far, there are no differences in validity between black men and black women on the scale (James, 2002). Cronbach's alphas for internal consistency have generally been found in the 0.71 range in previous studies (Dressler, Bindon, & Neggers, 1998).

Depression Measurement

The World Mental Health Composite International Diagnostic Interview (CIDI) is used to assess depression in the NSAL and NCS-R (Kessler et al., 2005; The WHO World Mental Health Survey Consortium, 2004; Wittchen et al., 2001). The CIDI is a fully structured lay interview that assesses mental disorders according to both International Classification of Diseases, 10th Revision (ICD-10) and Diagnostic Statistical Manual-IV (DSM-IV) criteria to assess a broad range of psychiatric disorders (Kessler et al., 2005; Williams et al., 2007; Wittchen et al, 2001). The internal consistency of the CIDI has been very good in a broad range of studies with Cronbach's alphas ranging between 0.70 and 0.91 (Park et al., 1995).

The CIDI includes question items on respondents' symptoms of depression. For instance, several of the depression screening questions ask respondents if they are sad,

have trouble sleeping, or if they have lost interest in things that were once enjoyable for them. Accordingly, the CIDI asks respondents for information concerning the length of time respondents may have felt depressed to assist in the diagnosis of depression. Additionally, respondents are asked to recall their most recent episode of depression as well as the onset of the first episode of depression they ever experienced. Thus, researchers can capture respondents' age of onset for depression as well as their lifetime and more proximal experiences of depression. Furthermore, the CIDI asks respondents to rate the severity of their depression and how much disability they suffer as a result of being depressed.

NSAL developers have devised algorithms to indicate the diagnosis of depression in a dichotomous format. These algorithms take the symptoms respondents endorse as well as the amount of impairment and the length of time respondents report depressed feelings into account in order to assess a diagnosis of depression. The research plan for this proposed project will adopt the dichotomous method of characterizing depression yet further analyses could certainly be done on depressive symptoms, as well as perceived severity and disability attributable to depression.

Data Analysis

The first aim of this study was to investigate the relationship between discrete SEP indicators upon racial discrimination and high-effort coping. The second aim of this paper was to examine the association of racial discrimination and high-effort coping with depression. All analyses were completed using SAS version 9.2 software (SAS Institute, Cary, NC) which has software capabilities to handle the complex survey design of the NSAL (Heeringa et al., 2004). More specifically, the sampling design strategy described

earlier does not adhere to the simple random sampling assumptions that default statistical packages utilize, which would result in biased confidence intervals and test statistics if applied to the NSAL sample (Heeringa et al., 2004). The analyses described below take the sample weighting developed by NSAL staff and analyses incorporate the design effects in the estimation of standard errors and test statistics.

Multivariate linear regression models were used to examine the relationship between SEP upon racial discrimination and John Henryism while controlling for age, sex, and marital status. Bivariate and multivariate logistic regression models were constructed to determine the relationship between SEP, racial discrimination, high-effort coping, and depression controlling for age, sex, U.S. geographical region, household size, and marital status. Logistic regression was used because depression was coded as a dichotomous variable.

Results

Table 4.1 presents the sociodemographic characteristics of the NSAL African American sub-sample as well as a number of relevant SEP indicators. The average age of this sample of African Americans is 44.28 and females composed nearly 55% of the sample. Slightly more than 30% of the sample reported that they were married or lived with a romantic partner and about 70% of respondents reported that they were employed. Slightly more than half of the respondents reported that they were home owners. Overall, respondents reported an average of 12.85 years of education and \$43,010 in household income. The average combined highest level of education for respondents' parents was 11.27 years. The majority of African Americans in the NSAL sample resided in the South. The average net worth (assets minus debts) reported was \$98,329 and the average

home value reported was \$97,485. Table 4.1 also includes the average the means number of experiences with racial discrimination, for both the major life events and everyday discrimination scales that are described above, as well as the mean John Henryism score. Respondents reported an average of 0.69 incidents of major lifetime racial discrimination and 3.39 incidents on the lifetime everyday discrimination scale. The average John Henryism score reported by respondents was 16.89.

Table 4.2 presents a correlation matrix displaying the relationship between racial discrimination, high-effort coping, SEP, and depression within the sample. Major discrimination was positively related to several SEP indicators, including respondents' parental education, household income, mean years of education, and reported home value. Everyday discrimination was positively related to respondents' parental education, household income, and mean years of education. Both measures of racial discrimination were positively related to major depressive episode but there was no relationship observed between racial discrimination and John Henryism.

SEP and Racial Discrimination

Table 4.3 presents the findings for the association between discrete SEP indicators and racial discrimination for both discrimination measures, major and everyday. Here, a consistent, positive relationship between SEP and racial discrimination is observed, even when controlling for relevant sociodemographic factors, namely age, sex, and marital status. With the exceptions of employment status, parental education, and net worth, a statistically significant, positive relationship between SEP indices and major discrimination is observed. In other words, greater levels of education, household income, and home values corresponded with increased levels of major racial

discrimination for African American respondents. Looking at everyday discrimination, there is a significant relationship between respondents who reported having a college degree, greater levels of household income, and greater levels of net worth and everyday discrimination.

SEP and John Henryism

Table 4.4 presents the findings for the regression models that tested the association between SEP indicators and John Henryism. There were no significant relationships between any of the SEP indicators and John Henryism.

SEP, Racial Discrimination, John Henryism, and Depression

Table 4.5 presents the findings for the bivariate and multivariate logistic regression analyses that were used to examine the relationships among SEP, racial discrimination and depression. Examining Table 4.5, bivariate findings indicate that there is a significant relationship between major racial discrimination and depression such that racial discrimination increases the odds of depression among African Americans. This relationship holds when adjusting for sociodemographic factors and SEP indicators. Multivariate analyses also indicate that greater levels of education and household income are associated with decreased odds of depression. Conversely, parental education and respondents' reported home values were related to increased odds of depression. Looking at the relationship between everyday racial discrimination and depression depicted in Table 4.5, there is not a significant relationship observed between everyday discrimination and increased odds of depression based upon bivariate results. However, results obtained from the multivariate analysis indicate that there is a significant relationship between everyday racial discrimination and increased odds of

depression. Similar relationships between SEP and depression were observed in Table 4.5. Increased levels of household income and education were negatively related to odds of depression while parental education and home values were related to increased odds of depression.

Table 4.6 presents the relationships between SEP, John Henryism and depression. Findings from Table 4.6 indicate that there is a significant positive relationship between parental education, home value, and John Henryism. There is also a positive association between net worth and depression although this relationship is not statistically significant. Conversely, household income and education are negatively related to John Henryism. Finally, we see that John Henryism is not significantly associated with depression.

Discussion

The first goal of this paper was to determine whether SEP was related to increased experiences of racial discrimination and utilization of high-effort coping among African Americans. It was hypothesized that greater levels of SEP would predict greater reports of racial discrimination and higher John Henryism scores among African Americans. Greater levels of education, household income, and home equity were associated with increased reports of major life events racial discrimination.. Household income, having a college degree, and net worth were associated with greater reports of everyday discrimination for African Americans. These results support the hypothesis that SEP would be positively related to increased reports of racial discrimination among African Americans. Additionally, these findings, observed in a nationally representative survey of African Americans across a diverse spectrum of SEP levels, corroborate previous

studies that have also found that African Americans of greater SEP are more likely to report increased levels of racial discrimination (Kessler et al., 1999).

It is possible that African Americans who possess greater levels of SEP live and work in more racially integrated settings and are likely exposed to greater levels of racial discrimination than poorer African Americans. For instance, we observed that African Americans who are not currently in the workforce or who are unemployed report lower levels of racial discrimination than employed African Americans. This finding reinforces the idea that African Americans are exposed to racial discrimination in workplace settings (Forman, 2003).

The relationship between SEP and John Henryism is less clear. We observe that parental education and home equity are significantly related to increased levels of John Henryism among African Americans. African Americans who come from more educated families may be encouraged to set high goals for success. Additionally, since most African Americans of greater SEP have earned, rather than inherited most of their socioeconomic resources, it is possible that African American families encourage hard work and striving as a coping strategy to counter adversity. Neckerman and colleagues (1999) suggest that African Americans of greater SEP have developed a "culture of mobility" which serves as an ideology to explain and cope with the stressors, such as racial discrimination, they experience in predominantly White settings. Perhaps one of these coping mechanisms is high-effort coping. One future direction that may help explain this finding would be to determine whether African Americans who come from more educated families are encouraged to set high goals, resulting in the adoption of

high-effort coping strategies when faced with psychosocial stressors, particularly those that pose as threats to individuals' achievement of socioeconomic goals.

Greater home values were associated with increased John Henryism scores among African Americans in this study. It is possible that, due to the lack of wealth within the African American community (Conley, 1999; Oliver & Shapiro, 1995), African Americans must work harder in their jobs and devote larger portions of their incomes toward the maintenance of their standard of living. Perhaps African Americans who spend a larger portion of their incomes and other financial resources on housing costs experience greater stress trying to pay for their homes and are more likely to utilize high-effort coping strategies as a response. Thus, another line of future inquiry would be to explore whether there is a difference in utilization of high-effort coping strategies according to the portion of financial resources devoted towards mortgages among African Americans is related to John Henryism.

On the other hand, there is a significant negative relationship between household income, education, and John Henryism. This finding suggests that SEP is negatively associated with utilization of high-effort coping among African Americans. For African Americans who have greater levels of education and earn higher incomes, it is possible that they find that their efforts are manifest in a higher standard of living and preclude the use of high-effort coping strategies. The conflicting findings for the relationship between SEP and John Henryism warrant further exploration in future studies.

The second goal of this paper was to determine whether “costs of upward mobility,” specified as exposure to racial discrimination and utilization of high-effort coping in this paper, are associated with increased odds of depression among African

Americans. It was hypothesized that both racial discrimination and high-effort coping would be associated with increased odds of depression among African Americans. Results indicated that both measures of racial discrimination (major and everyday) were associated with increased odds of depression, net of socioeconomic position. Interestingly, all SEP indicators, except wealth (net worth) were related significantly to depression net of both measures of racial discrimination. Most provocative, is the fact that different SEP indicators were related to depression in opposite ways. Specifically, parental education and home value were associated with increased odds of depression while household income and education (particularly having a high school degree and above) were associated with decreased odds of depression.

The SEP-depression results depict a complicated picture. It is clear that racial discrimination did not alter the relationship between SEP and depression that was observed in chapter three. Some aspects of SEP (net worth, home value, parental education) could be considered risk factors for depression. In the multivariate analyses, we observe that education and income are negatively associated with odds of depression for African Americans when examining both major and everyday discrimination. Conversely, parental education and home equity are both positively associated with odds of depression among African Americans. Education and income were related to decreased odds of depression, even when accounting for the effects of racial discrimination. These findings suggest that SEP could be both a protective factor and a risk factor for African Americans. It is also important to note that the relationship between SEP and depression is not explained by racial discrimination. The complete explanation of such seemingly contradictory findings awaits future, more focused

analyses. Researchers must continue to consider alternative explanations that could explicate the relationship between SEP and depression.

The results reported here do not support the hypothesis that SEP would be associated with greater levels of high-effort coping. John Henryism was not related to increased odds of depression. This finding is consistent with Neighbors, Njai, and James (2007) study which found that John Henryism was not related to depressive symptoms among African American respondents in the National Survey of American Life. From a stress and coping perspective, we would expect that exposure to racial discrimination would lead to the use of high-effort coping strategies. However, the evidence from the correlation matrix indicates that neither racial discrimination nor SEP is related to John Henryism. Additionally, racial discrimination was not associated with John Henryism; nor was any of the SEP indicators significantly associated with John Henryism (Table 4.2). As a result, adding John Henryism to the full multivariate model that included racial discrimination did not change the relationship between racial discrimination and depression (table not shown). It may be that John Henryism is not a coping strategy that is subscribed to, even in the face of a racial discrimination among the African Americans.

Another important coping mechanism to consider that was not examined in this study that may help explain why there was no relationship between John Henryism and depression is social support. The stress and coping model suggests that once individuals appraise a stressor, they will first turn to social support to cope with the stressor (Wenzel et al., 2002). Social support has been implicated as a significant coping factor, particularly for African Americans, in the stress and coping literature (Cassel, 1976; Thoits, 1995; Wheaton, 1985) and it is possible that social support precludes them the

utilization of high-effort coping strategies. While it is possible that John Henryism is not related to depression among African Americans, there have been very few studies that have examined this relationship. So the results of this study should not be considered to be conclusive and more studies are needed.

Another possibility for the lack of a relationship between depression and John Henryism is that African Americans who perceive certain barriers as insurmountable may adapt by not conserving energy. Keller and Nesse (2006) suggest that depressive symptoms such as fatigue, pessimism, and anhedonia are adaptations when individuals perceive that future efforts will not be successful. So, it is possible that there is no relationship between depression and John Henryism because the depressive symptoms that depressed individuals experience such as fatigue, pessimism, anxiety, and anhedonia prevent the continued expenditure of energy. For African Americans who are depressed, they may experience depressive symptoms that prevent them from engaging in the use of high-effort coping to address perceived racialized barriers. Even for African Americans who do not meet CIDI criteria for depression, it is possible that African Americans expend less energy to work toward goals that they perceive insurmountable due to structural barriers.

The results of this study demonstrate the importance of the consideration of the relationship between racial discrimination and depression among African Americans. Racial discrimination was associated with increased odds of depression, even when accounting for the effects of individuals' socioeconomic position. This certainly underscores the importance and robust nature of racial discrimination. However, it may also be the case that the relationship of racial discrimination to depression may vary as a

function of different levels of SEP. For example, SEP categories could be constructed as low, middle, and high. Exploring SEP as a categorical variable would allow an assessment of whether the relationship between racial discrimination and depression differs according to different categories of SEP. Thus, one future research direction would be to categorize SEP explore whether there are interaction effects among different levels of SEP, racial discrimination, and major depression.

Just as important is the fact that most of the SEP indicators are significantly related to depression net of racial discrimination is the consideration of other factors that may help to explain the relationship between SEP and depression. This study demonstrates that African Americans face unique stressors that are uniquely patterned by race and SEP. However, this paper only examined two factors, racial discrimination and John Henryism, that could affect the SEP-depression relationship. There are numerous other factors such as goal striving stress as well as strained social support networks and lifestyle incongruence that could expand our understanding of the relationship between SEP and depression among African Americans. More research needs to be done to explore the coping mechanisms and resilience factors that protect the mental health, particularly vulnerability to develop depression, of African Americans against stressors like racial discrimination.

One major step that should be addressed in future research is examining the *process* of upward social mobility and its effect upon the mental health of African Americans. The data utilized in this paper are from a cross-sectional study, thus it is possible that the findings from this study do not reflect the actual "process" of upward mobility over time upon the mental health of African Americans. It is also possible that

there are critical lifecourse periods in which African Americans would be most vulnerable to develop depression that are not covered because the data are not stratified by age.

In summary, the contributions to the public health literature of the results from this study are multifaceted. The results of this paper reveal that SEP is associated with increased exposure to racial discrimination, which is highlighted as a unique stressor that African Americans encounter and threatens their mental health (Kessler et al., 1999). Indeed, results indicate that racial discrimination is associated with increased odds of depression among African Americans. We also observe that the relationship between SEP and depression persists, even when controlling for the effects of racial discrimination. This finding highlights the fact that SEP is a stronger predictor of depression for African Americans. It also suggests that other costs of upward mobility should be considered to further investigate the relationship between SEP and depression.

Table 4.1 Sociodemographic Characteristics of the NSAL African American Sample

Variable	M (SE); % (n)
Total	3053
Age	44.28 (0.89)
Female	54.51(1942)
Household Size	2.7 (0.06)
Household Income	43010 (1866)
Education (Years)	12.85 (0.11)
< High School	20.1 (748)
High School Grad	34.2 (1116)
College Grad	25.69 (706)
Grad/ Professional School	20.1 (483)
Parental Education	11.27(0.09)
Net Worth	98329 (7579)
Home Value	97485 (4559)
Home Owner	54.59 (1517)
Marital Status	
Married/ Partner	30.43 (969)
Never Married	42.95 (1079)
Divorced	13.6 (458)
Separated	7.61 (304)
Widowed	5.4 (229)
Employment Status	
Employed	70.37 (2020)
Unemployed	7.41 (289)
Not in Labor Force	22.22 (736)
Region	
Northeast	22.1 (433)
Midwest	18.62 (538)
West	12.1 (244)
South	47.24 (1838)
Racial Discrimination	
Major	0.69 (0.33)
Everyday	3.39 (0.13)
John Henryism	16.89 (0.09)

Table 4.2 Correlations, Means, and Standard Deviations in the NSAL African American Subsample

Variable	1	2	3	4	5	6	7	8	9
1) Major Discrimination	-								
2) Everyday Discrimination	0.38**	-							
3) John Henryism	-0.02	-0.02	-						
4) Parental Education (years)	0.04*	0.04*	0.02	-					
5) Education (years)	0.11**	0.07**	0.01	0.49**	-				
6) Household Income	0.05**	0.03	-0.02	0.19**	0.33**	-			
7) Net Worth	0.004	0.003	-0.004	0.10	0.07**	-0.002	-		
8) Home Value	0.05*	-0.02	0.01	0.16**	0.24**	0.29**	0.02	-	
9) Depression	0.05*	0.04*	0.02	0.09**	0.04*	0.004	0.02	0.03	-
Mean	0.69	3.39	16.89	10.98	12.45	34742	82525	92628	0.13
Standard Deviation	113.20	545.43	1335.53	3.53	2.63	38470	181454	13121	4
<i>N</i>	2689	2687	2124	3053	3053	3053	3053	3053	3053

* Significant at the $p < .05$. ** Significant at the $p < .01$.

Table 4.3 Racial Discrimination Regressed on Indicators of Socioeconomic Position

Education	Major Discrimination			Everyday Discrimination		
	β	(SE)	t-value	β	(SE)	t-value
Less than High School (ref)	-	-	-	-	-	-
High School Graduate	0.01	0.06	0.21	0.23	0.24	0.95
College Graduate	0.28	0.08	3.57**	0.99	0.22	4.39**
Grad/ Professional	0.29	0.10	2.92**	0.37	0.24	1.55
	β	(SE)	t-value	β	(SE)	t-value
Household Income	0.20	0.05	4.08**	0.47	0.24	2.00*
	β	(SE)	t-value	β	(SE)	t-value
Employment Status						
Employed (ref)	-	-	-	-	-	-
Not in Workforce	-0.09	0.06	-1.55	-0.78	0.21	-3.66**
Unemployed	0.03	0.07	0.46	-0.02	0.41	-0.06
	β	(SE)	t-value	β	(SE)	t-value
Parental Education	0.01	0.01	0.87	-0.02	0.02	-0.84
	β	(SE)	t-value	β	(SE)	t-value
Wealth Indicators						
Net Worth	0.36	0.04	0.90	0.38	0.19	2.05*
Home Value	0.30	0.13	2.36*	-0.01	0.33	-0.03

All models control for age, sex, and marital status

*Significant at $p \leq 0.05$, two-sided test;

**Significant at $p \leq 0.01$, two-sided test

Table 4.4 John Henryism Regressed on Indicators of Socioeconomic Position

Education	β	(SE)	t-value
Less than High School (ref)	-	-	-
High School Graduate	-0.26	0.22	-1.16
College Graduate	-0.31	0.23	-1.35
Grad/ Professional	-0.12	0.25	-0.45

	β	(SE)	t-value
Household Income	-0.29	0.25	-1.17

Employment Status	β	(SE)	t-value
Employed (ref)	-	-	-
Not in Workforce	0.002	0.18	0.01
Unemployed	0.06	0.39	0.16

	β	(SE)	t-value
Parental Education	0.02	0.02	1.4

Wealth	β	(SE)	t-value
Net Worth	0.27	0.15	1.81
Home Value	-0.03	0.34	-0.10

Controlling for age, sex, and marital status

*Significant at $p \leq 0.05$, two-sided test; **Significant at $p \leq 0.01$, two-sided test

Table 4.5 Major Depressive Episode by SEP and Major and Everyday Racial Discrimination

Variable	Major Discrimination		Everyday Discrimination	
	Bivariate OR (95% CI)	Multivariate OR (95% CI)	Bivariate OR (95% CI)	Multivariate OR (95% CI)
Racial Discrimination	1.11 (1.02- 1.21)*	1.20 (1.08- 1.34)**	1.02 (0.99- 1.06)	1.04 (1.01- 1.08)*
Parental Education (Years)		1.11 (1.05- 1.18)**		1.11 (1.05- 1.18)**
High School Graduate		0.62 (0.41- 0.94)*		0.60 (0.40- 0.90)*
College Graduate		0.55 (0.34- 0.91)*		0.55 (0.34- 0.89)*
Grad/ Professional		0.56 (0.34- 0.93)*		0.57 (0.34- 0.94)*
Household Income (log)		0.54 (0.34- 0.84)**		0.55 (0.35- 0.85)**
Net Worth (log)		1.07 (0.79- 1.45)		1.06 (0.77- 1.45)
Home Value (log)		3.12 (1.12- 8.70)*		3.17 (1.11- 9.04)*
Pseudo R ²	0.01	0.07	0.003	0.07

Multivariate models are adjusted for age, sex, marital status, geographic region, and household size

*Significant at $p \leq 0.05$, two-sided test; **Significant at $p \leq 0.01$, two-sided test

Table 4.6 Major Depressive Episode by Socioeconomic Position and John Henryism

Variable	Major Depressive Episode	
	Bivariate OR (95% CI)	Multivariate OR (95% CI)
John Henryism	1.00 (0.96- 1.04)	1.01 (0.97- 1.05)
Parental Education (Years)		1.09 (1.02- 1.17)*
High School Graduate		0.59 (0.39- 0.92)*
College Graduate		0.59 (0.35- 1.00)*
Grad/ Professional		0.59 (0.35- 0.97)*
Household Income (log)		0.57 (0.34- 0.96)*
Net Worth (log)		1.08 (0.82- 1.43)
Home Value (log)		2.97 (1.00- 8.92)*
Pseudo R ²	0	0.05

Multivariate models are adjusted for age, sex, marital status, geographic region, and household size

*Significant at $p \leq 0.05$, two-sided test; **Significant at $p \leq 0.01$, two-sided test

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CHAPTER V

Conclusion

The overarching question that drove the research objectives of this dissertation was to examine whether the benefits generally considered conferred with higher socioeconomic position (SEP) protect against the development of depression among African Americans. In this dissertation, I examined the relationship between socioeconomic position and depression and explored the potential mental health costs of upward mobility among African Americans.

In chapter two, I began with a theoretical discussion that briefly covers the conceptualization of SEP within the public health literature as well as several different challenges presented in the measurement of commonly used SEP indicators. The examination of measurement strategies for different indices of SEP, and an exploration of unique socially patterned stressors and coping resources, referred to as "costs of upward mobility," that may affect the mental health, primarily the development of depression, of African Americans are explored in chapter two. Linking to the overarching question driving this dissertation, I considered how upward social mobility may simultaneously threaten and bolster the mental health of African Americans.

Chapter three explored the relationship between discrete SEP indices, including household income, education, wealth indicators (net worth and home value), and a measure of childhood SEP (parental education), and depression among African Americans using data drawn from the National Survey of American Life. Here, I

hypothesized that increased SEP would be positively associated with greater odds of depression among African Americans. Results garnered from the logistic regression analyses presented in chapter three offered mixed support for this hypothesis. It was observed that higher levels of parental education and higher reported home values were associated with increased odds of depression in this sample of nationally representative African Americans. Conversely, education and household income were associated with decreased odds of depression.

The explanation for the association between parental education and increased odds of depression is challenging. However, it is possible that African Americans with parents who are highly educated may feel increased pressure to succeed. This pressure could be manifest in depression. Other psychosocial stressors that are related to this kind of pressure such as goal striving stress, described as the discrepancy between aspirations and achievements, may also be related to depression. Perhaps African Americans who come from more educated families have higher expectations and aspirations and are more vulnerable to depression if they do not achieve their goals. African Americans who come from more educated families may have difficulty in maintaining the legacy established by their parents. For instance, Patillo-McCoy's ethnographic research illustrates that with fewer job opportunities and sub-standard education, the threat of downward mobility is very salient for African Americans who come from middle class backgrounds. Many of the adult children described in Patillo's study lack the necessary education and skills to gain occupational opportunities that will allow them to maintain a middle class lifestyle once they leave their parents homes. These circumstances could be related to increased levels of depression among NSAL respondents who come from families with more

education. The relationship between childhood SEP and depression among African Americans observed in chapter three highlights the need to collect longitudinal data and examine longitudinal datasets in order to explore intergenerational mobility among African Americans.

Placed within the context provided in chapter two, the association between greater home value and increased odds of depression among African Americans is understandable because African Americans who have higher home values may live in areas that are predominantly White. This finding also points to the importance of the consideration of neighborhood influences upon the mental health of African Americans. This phenomenon could increase the home values of African Americans but may also increase respondents' exposure to racial discrimination due to them residing in predominantly White areas. It is possible that African Americans of greater SEP reside in more economically stable neighborhoods but the neighborhoods could be predominantly White, thus exposing African Americans to greater levels of racial discrimination. Future studies should explore how the racial and socioeconomic composition influences the mental health of African Americans.

There was no relationship observed between net worth, the other wealth indicator examined, and depression among African Americans. Although this finding did not support the hypothesis that increased levels of SEP would be associated with increased odds of depression, it is also notable that there was not an inverse relationship between net worth and odds of depression. This finding is similar to the results from Rodriguez et al. (1999) study which observed that wealth was not related to depression for African American respondents drawn from the Americans Changing Lives and National

Comorbidity Study. The relationship between different indices of wealth and depression among African Americans warrants further investigation since there are so few studies that have examined this area. It would seem that increased levels of wealth would be related to lower odds of depression among African Americans. The fact that there is no inverse relationship observed between net worth and depression for African Americans in this dissertation challenges the notion that increased SEP among African Americans leads to improved mental health. This is an important issue because it suggests that economic resources may not be the lone answer to African Americans' mental health problems and the continued investigation of unique cultural and social factors that affect the mental health of African Americans is necessary. It is important to consider other stressors such as strained social support networks and goal striving stress that may affect African Americans who possess greater levels of SEP which may reduce or eliminate the benefits that increased levels of wealth could offer.

The way that wealth is measured in this dissertation could preclude us from observing a relationship between net worth and depression for African Americans. One area that should be explored in future studies is the examination of how African Americans accumulate wealth and how wealth operates according to how it was attained by African Americans. African Americans who engage in an arduous struggle to attain wealth may experience psychosocial stressors such as racial discrimination or goal striving stress that undermine the benefits that wealth offers. Conversely, African Americans who were born into more wealthy families may have a different, less stressful, experience in obtaining the wealth they possess. These differences in wealth accumulation could be helpful in examining which wealthy African Americans are more

vulnerable to depression. Additionally, researchers must also consider the quantity of wealth that African Americans possess. One approach may be to categorize wealth in order to determine how different levels of wealth are related to depression. Given the overall lack of wealth among the African American community, it is also possible that we observe no relationship between net worth and depression here because there are large numbers of respondents who report negative net worth. There could be a substantial portion of African American respondents in the NSAL who report that they are in debt and possess no wealth. If we disaggregated the wealth data and examined the levels of wealth and debt that respondents possess, it is possible that we may gain a better understanding of the relationship between wealth and depression among African Americans.

Household income and education, the two most commonly used measures of SEP, predicted decreased odds of depression among African Americans. However, these SEP indices only predicted decreased odds of depression once home value was added to the logistic regression model predicting depression. Prior to the addition of wealth indices to the logistic regression model, neither education nor income was associated with decreased odds of depression. Without the addition of wealth, the conclusions drawn from analyses would have been incomplete and inaccurate. Previous studies such as those conducted by Brown et al. (1995), Williams, Takeuchi, and Adair (1992), and Williams et al. (2007) produce findings that indicate that SEP is not related to depression among African Americans. However, the findings presented in chapter three illustrate the importance of including multiple measures of SEP into health studies, including the utilization of SEP indices that may not be traditionally used in health studies such as

childhood SEP indicators and measures of wealth. This innovation, absent from most studies that investigate the relationship between SEP and depression among African Americans, is an important factor for public health researchers to account for in future research.

Accounting for the effects of net worth and home value revealed a significant inverse association between education and depression as well as income and depression. It is possible that home value is a suppressor variable. A suppressor variable is a variable that improves the prediction of a dependent variable through the addition of a variable which is not correlated with the dependent variable but is related to other independent variables (Thomson & Levine, 1997). In chapter three, we observed that neither of the wealth indicators was significantly correlated with depression, although home value was related to education and household income. When home value was added to the regression equation predicting depression, there was a significant change in the beta weights of the predictor variables that were previously unrelated to depression (household income and education).

These findings are important to consider because previous investigations of the relationship between SEP and depression among African Americans have not included wealth and often do not find a relationship between SEP and depression (Williams et al., 1992; Williams et al., 2007). The results of chapter three suggest that the exclusion of wealth from previous studies could be the reason why researchers have concluded that there are no relationships between SEP and depression. Accounting for wealth indices and parental education provided an enhanced picture of the relationship between SEP and depression among African Americans and findings from chapter three demonstrate that

the inclusion of diverse SEP measures enhances researchers' understanding of the relationship between SEP and depression among African Americans.

In chapter four, I examined potential mental health costs of upward mobility that African Americans may pay, notably the risk of increased exposure to racial discrimination and subsequent utilization of high-effort coping, which was operationalized as John Henryism. Additionally, I investigated whether racial discrimination and John Henryism were related to increased odds of depression among African Americans. It was predicted that increased levels of SEP would be associated with greater levels of racial discrimination. Linear regression analyses indicated that increased levels of education, household income, and home values were related to greater reports of major racial discrimination. Respondents who reported that they had attended college and greater levels of household income and net worth had increased levels of everyday discrimination. The results of analyses presented in chapter four offers evidence to support the hypothesis that increased SEP is related to greater exposure to racial discrimination among African Americans. These findings also bolster support for researchers who suggest that African Americans of greater SEP are exposed to increased levels of racial discrimination (Feagin & McKinney, 2003; Forman, 2003; Sellers et al., 2006). The results garnered from this study highlight the fact that increased levels of SEP correspond with greater reports of racial discrimination, so researchers should continue to pay close attention to racial discrimination as a unique stressor that could affect the health of African Americans and the risk of exposure is even greater among African Americans with higher SEP.

It was also predicted that SEP would be positively associated with higher John Henryism scores. There was mixed support for this hypothesis. For parental education and home value, there was a significant positive relationship with John Henryism. Net worth was also associated with greater levels of John Henryism, though this association was not statistically significant. Conversely, there was a negative relationship between household income, education, and John Henryism.

The association between parental education and John Henryism is curious. Perhaps African Americans who come from more educated families are encouraged to set high socioeconomic goals and to work hard to achieve such goals. When these African Americans are faced with psychosocial stressors, including structural barriers that threaten upward social mobility, it is possible that they utilize high-effort coping to address such stressors. Another possibility is that African Americans of greater SEP have a greater sense of control and mastery than poorer African Americans, and as a result, they are more likely to adopt active coping strategies to address stressors. The exploration of the relationship between SEP, sense of control, and mastery among African Americans in future studies may help to explain this relationship.

The relationship between home value and John Henryism is also somewhat counterintuitive. However, use of high-effort coping may vary according to the level of socioeconomic resources African Americans devote to their housing costs. Perhaps African Americans who devote a larger portion of their socioeconomic resources to housing costs may experience greater stress from attempting to meet financial obligations and utilize high-effort coping to address this financial stress.

Again there was an inverse relationship between education, household income and John Henryism among African American in this sample. There are a number of possible explanations to this relationship. African Americans who perceive that their income is commensurate with their level of education and have adequate socioeconomic resources to support their lifestyle may experience less stress and subsequently report lower levels of John Henryism. John Henryism may also vary according to income level among African Americans. Those who earn enough income to afford their standard of living, including housing costs, may experience lower levels of financial stress and report lower levels of John Henryism. These complex results for the relationship between SEP and John Henryism suggest that more research is needed to more adequately explore this relationship among African Americans.

Another goal of chapter four was to evaluate the impact of racial discrimination and high-effort coping upon depression. It was hypothesized that racial discrimination and John Henryism would be significantly related to increased odds of depression when controlling for relevant sociodemographic factors and SEP indicators. Both measures of racial discrimination were related to increased odds of depression. However, John Henryism was not significantly related to odds of depression in either bivariate or multivariate analyses.

Neighbors, Njai, and Jackson (2007) examined the relationship between depressive symptoms and John Henryism and the results of the present work corroborate their findings for depression among African Americans. One important aspect of stress and coping that was not examined in this dissertation is social support. The stress and coping model suggests that once individuals appraise a stressor, they will first turn to

social support to cope with the stressor (Wenzel et al., 2002). It is possible that social support precludes African Americans from adopting the use of high-effort coping strategies.

Nesse argues that certain depressive symptoms may be an adaptation to certain situations, defined as the situation-symptom hypothesis. From this perspective, depressive symptoms may be adopted when individuals are faced with certain situations. For instance, he argues that fatigue, defined as mental or physical weariness, is a plausible reaction when continued striving toward failed goals is unlikely to be rewarded. In their 2005 study, Heller and Nesse find that when individuals' goals are not reached, depressive symptoms such as pessimism and fatigue are adopted. Further, they argue that the continued striving for failed goals may in itself may be maladaptive and eventually cause more problems. Perhaps African Americans who are unable to achieve their goals are affected by depressive symptoms that prevent them from continued striving. This may explain the fact that there is no relationship between depression and John Henryism observed in chapter four. Depressed respondents may be likely to report lower John Henryism scores because symptoms of depression preclude them from expending more energy to achieve goals, particularly when goals may be seen as unattainable. It is important to investigate African Americans' reports of failed goals as well as discrepancies between their aspirations and achievements, the factors African Americans attribute to their failures, and whether they endorse depressive symptoms such as pessimism and fatigue in the face of failed goals.

It is also likely that levels of John Henryism vary according to the mobility status of African Americans as well as the duration and severity of obstacles African Americans

encounter as they attempt to ascend the socioeconomic hierarchy in the United States. For individuals who come from more financially stable family backgrounds, their path to upward social mobility may differ from individuals who come from poorer backgrounds. One reason why John Henryism may not be associated with CIDI diagnosed depression in this dissertation or depressive symptoms in Neighbors, Njai, and Jackson's 2007 study is that African Americans may feel that they have not seen the benefits of continued utilization of high-effort coping. If African Americans find that the challenges and obstacles that impede their progress in attempts for upward social mobility, they may find it more advantageous to cease expending energy in frivolous attempts to achieve goals that may be out of reach for structural or personal reasons (Heller & Nesse, 2005). Furthermore, it is critical to assess the periods during the lifecourse in which African Americans would be most likely to encounter racialized barriers in workplace settings, when they are most likely to utilize high-effort coping. There have not been many examinations of the relationship between John Henryism and mental health, so it is an area of research that certainly warrants further investigation.

Perhaps the coping mechanisms African Americans use to address stress have different implications for mental health. For instance, Jackson and Knight (2006) posit that when faced with stressful life conditions, African Americans use both positive and negative health behaviors to cope with challenging life circumstances. Negative health behaviors include smoking, alcohol use and abuse, drug use, and consumption of high fat foods while positive coping include exercise and meditation. It is likely, however, that African Americans likelihood to utilize positive or negative coping behaviors is correlated with SEP. For instance, poorer African Americans are more likely to live in

areas that are rife with fast food restaurants (Grier & Kumanyika, 2008) and liquor stores (LaVeist & Wallace, 2000). Conversely, African Americans who have greater levels of SEP may have access to healthier grocery stores and health clubs. Jackson and Knight argue that while poor health behaviors may provide immediate alleviation from the stressors African Americans face and protect against the development of depression and other mental disorders among African Americans, poor health behaviors ultimately erode the physical health of African Americans. Further exploration of the relationship between SEP, coping behaviors, and depression among African Americans is an area that warrants more research. It is also important to consider how SEP affects the types of resources that African Americans have access to as well as the types of coping behaviors they adopt which likely vary according to SEP.

The results from chapter four suggest that increased levels of SEP could be considered a risk factor for exposure to racial discrimination. It is also evident that African Americans of higher SEP do seem to pay some costs of upward social mobility, as conceptualized in this dissertation, manifest in increased exposure to racial discrimination that accompanies increased levels of SEP among African Americans. Placed within the larger context of the dissertation, the importance of examining multiple SEP indicators is apparent, as the relationships between SEP, racial discrimination, and depression varies according to the measure of SEP utilized. The link between SEP and depression highlighted in this work indicates that researchers must continue to consider racial discrimination as a unique and important predictor of depression among African Americans. Considering that SEP was associated with increased exposure to racial discrimination among African Americans in the NSAL sample, researchers should

continue to collect socioeconomically diverse samples of African Americans in future studies. These findings also elucidate a range of future directions that should be considered in future explorations of the relationship between SEP and depression among African Americans that are discussed below.

Chapter four also reinforces the importance of the relationship between SEP and depression among African Americans. We observed that even after accounting for the effects of racial discrimination, the relationships between SEP and depression, first observed in chapter three, do not change. The effects of SEP upon depression are independent of racial discrimination. These findings also suggest that there are other stressors that should be considered in the examination of the relationship between SEP and depression. Although racial discrimination is a unique powerful predictor of depression, there could be other factors that are important to consider.

Some researchers argue that African Americans rely heavily upon informal support networks in dealing with personal problems (Ulbrich et al., 1989). However, a number of researchers argue that as African Americans accumulate more SEP, they reside further away from salubrious social support networks. This could reduce their receipt of positive social support. Thus, another area to explore in future studies is the relationship between SEP and social support among African Americans.

Neckerman and colleagues argue that African Americans who possess greater levels of SEP face intra-racial conflicts that may arise due to contact with poorer African Americans in churches, clubs, civic organizations as well as their kin networks and neighborhoods. It is important to consider the potential conflicts African Americans have with their social support networks due to both increasing physical and philosophical

differences. Others have argued that because of the unique social position of African Americans of higher SEP, they are exposed to stress within their social support networks because members of their support networks may be more dependent upon them for financial support as well as social capital, such as providing information on how to find employment or how to navigate systems of higher education (Neckerman et al., 1999; Patillo, 2007). Patillo's ethnographic work in a gentrifying Chicago neighborhood illustrates how African Americans who possess greater levels of SEP take on additional stressful responsibilities. She argues that middle class African Americans often play the role of "middlemen and middlewomen" since they possess the kind of cultural and social capital needed to advocate for safer neighborhoods, better schools, or to help find better jobs and navigate the system of higher education that working class and poor African Americans do not have. While these roles appear to be stressful, it is unknown whether the role that African Americans play in communities and even in their immediate social support networks is deleterious to their mental health.

Overall, the empirical findings from this dissertation have important implications for public health researchers. First, researchers should consider the incorporation of varied indices of SEP into health studies, particularly childhood SEP and indices of wealth. Considering the paradoxical findings discussed here, more research needs to be conducted to determine how SEP operates to affect depression among African Americans. Second, researchers must consider the unique social position of African Americans as they accumulate greater levels of SEP. Although increased levels of SEP certainly protects African Americans against the development of some diseases and even mortality, the evidence provided by the empirical findings presented in chapters three and

four of this dissertation suggest that African Americans of higher SEP face additional psychosocial stressors that are socially patterned by both race and SEP and threaten their mental health. More specifically, the results from this dissertation demonstrate that the “costs of upward mobility” African Americans pay, in this case greater exposure to racial discrimination, increases vulnerability to develop depression among African Americans. Future research should continue to pay close attention to the complex relationship between SEP, utilizing diverse SEP indices, and depression. Future studies must also examine other stressors that African Americans face, particularly factors that could be related to downward mobility such as economic stressors that may substantially alter the socioeconomic trajectory of African Americans, especially given their lack of wealth. The findings from this study do not indicate that John Henryism related to depression. So, future research should continue to examine the coping strategies and resources available to African Americans that may protect them from the development of depression but also resources that may increase susceptibility to depression.

Limitations

Although the findings from this dissertation are intriguing, there are a number of limitations that must be discussed as well as several important future directions that researchers interested in the relationship between race, SEP, and mental health should consider. Although depression was the index of mental health utilized in this dissertation, it is possible that other mental health indicators such as life satisfaction, self esteem, mastery, psychological distress, other mood disorders (such as dysthymia), or even sub-clinical depression, and depression severity could be more relevant mental health indicators than the CIDI diagnosed depression utilized in this dissertation. With

special regard to depressive symptoms, it is possible that the endorsement of different symptoms is elicited by certain experiences. For instance, studies conducted by Keller and Nesse (2005; 2006) reveal that feelings of guilt, rumination, fatigue, and pessimism were associated with failed efforts. Conversely, respondents who experienced social losses were more likely to report crying, sadness, and desire for social support. Thus, the exploration of the variation in the endorsement of depressive symptoms may help to explain whether African Americans of greater SEP derive feelings of depression from failed efforts that could be attributed to individual or structural level precipitants.

I have approached the examination of SEP and depression from the social causation perspective. Due to the cross-sectional nature of the data utilized in this dissertation as well as the lifetime reporting of depression, it is not possible to determine the direction of the relationship between SEP and depression among African Americans. Specifically, it is possible that depression precedes SEP and affects accumulation of SEP or SEP could influence the development of depression. The development of some depressive symptoms such as anxiety and pessimism may prevent African Americans from the necessary taking risks that would allow them to gain greater access to SEP. This could be part of a vicious cycle that precludes African Americans from gaining greater amounts of SEP. For instance, Gordon Nembhard (2006) notes that ignorance and apprehension help to explain how African Americans do not invest in wealth generating mechanisms such as investing in stocks and bonds, mutual funds, and money markets. This is an important limitation and the use of both prospective studies to determine whether poorer socioeconomic conditions are related to subsequent

development of depression or whether depression influences the accumulation of socioeconomic resources.

There is a body of literature that was not engaged here which explores various aspects of depression, particularly variability in the measurement and diagnosis of depression according to race, culture, and sex. For instance, a number of researchers have investigated reasons why rates of depression are lower among African Americans compared to Whites. Researchers have suggested that depression may not be adequately assessed in African Americans, and they posit several explanations that could explain lower observed rates of depression among African Americans, including utilization of culturally inappropriate clinical assessment measures and clinician biases that lead to misdiagnosis or under-diagnosis of depression (Kohn-Wood et al., under review; Snowden, 2003; USDHHS, 2001). The combination of culturally inaccurate tools and clinician bias could affect the lower rates of major depression found among African Americans in community psychiatric epidemiologic studies. Additionally, self-report measures of depression may be limited in assessing depression in racially diverse samples and in men (Cochran & Rabinowitz, 2000). For instance, Cochran and Rabinowitz (2000) report that men may not endorse common symptoms of depression and respond differently to standardized self-report measures of depression. They further describe the concept of "masked depression," in which men who experience depression may engage in risk-taking behaviors to cope with their depressive symptoms.

Due to the reliance upon respondents' self-report of depressive symptoms, the duration of episodes, and the disability associated with episodes, the retrospective recall of depressive symptoms may be inaccurate, introducing recall bias into the measurement

of depression. Additionally, there is a large literature that examines the stigma surrounding mental illness not only among African Americans but across numerous racial and ethnic groups in the United States. It is possible that the social stigma may have impacted the self-report of mental disorders in the NSAL.

Another key limitation of this dissertation work is that it does not address the temporal nature of mobility due to my use of a cross sectional dataset. There are other important aspects of mobility found in the status attainment literature, such as parental occupation and the kinds of social networks individuals are socialized into as youth as well as the types of neighborhoods people grew up in or schools attended, which could aid to an even better appreciation of mental health costs of upward social mobility. Additionally, it would be interesting to examine how downward mobility could affect the mental health of African Americans. A lifecourse perspective with prospective data would likely be helpful to examine patterns of social mobility over time and how these patterns impact the mental health of African Americans. It is also possible that there are critical periods in which African Americans would be most vulnerable to develop depression that are missing because the analysis did not stratify the sample by age. There may also be critical periods during the lifecourse in which different SEP indicators, particularly wealth, could alter the life circumstances of individuals and increased their vulnerability to develop depression.

One potential weakness that may be perceived in this work is the exclusion of occupational status in the measurement of SEP. There are a number of different strategies in the public health literature in regard to how to conceptualize occupational status. For instance, Williams et al. (1997) conceptualize occupational status as a marker

of social class, not socioeconomic position (Williams et al., 1997). A number of social class theories largely base class designations upon individuals' relation to the labor marker, which is usually considered occupation (Wright, 1997). So this certainly begs the question, should occupational status be considered separately as a measure of social class or should it be incorporated into health studies as a measure of SEP? Regardless of how occupation is categorized, SEP or social class, there are additional challenges that researchers face in the measurement of occupation. For instance, occupational status is measured by NSAL, and many other studies, according to the nine-category U.S. census ratings. However, how do these ratings relate to occupational prestige, work autonomy, and other aspects that could be protective of or detrimental to mental health?

Additionally, researchers often lump respondents into broader categories such as “worker,” “supervisor,” and “manager (Williams et al., 1997) or simply bifurcate occupational status into two broad categories, often blue collar versus white color or skilled versus unskilled (James et al., 2006). Are these approaches appropriate when examining such diverse occupational categorizations? These questions certainly offer fodder the unique consideration and treatment of occupational status in health studies.

While it is important to incorporate multiple measures of SEP into public health studies, it should be noted that the nature of collecting private economic information is often manifest in missing data for economic indices. Respondents may not be aware of socioeconomic information, especially information on wealth holdings, or they may be unwilling to disclose this type of information, so obtaining sensitive socioeconomic information will continue to challenge public health researchers but as demonstrated by the results from this study it is important to obtain this type of information. There are

standard metrics that survey methodologists suggest to obtain such sensitive information such as matching interviewers and respondents on race, sex, and social class.

Respondents may also be more comfortable providing information to interviewers using a range of dollar values, rather than an absolute number. Researchers must continue to develop strategies to elicit sensitive economic data from respondents.

Although the inclusion of the wealth indicators utilized in this dissertation provided an enhanced understanding of the relationship between SEP and depression among African Americans, the measurement strategy of wealth could be strengthened. First, the measure of net worth used had a great deal of missing data and multiple imputation was used to account for the large number of missing data. However, this technique may be problematic. The missing values for study respondents may not have been missing at random, a key assumption in the imputation of missing data. It is possible that the wealth estimates for this sample are inflated because respondents who had positive wealth values may have been more likely to report wealth than individuals who were in debt or who held substantially lower levels of wealth. Additionally, the imputation method used to derive estimates of assets and debts is based upon the responses that were actually collected for SEP values such as household income, education, employment status, and home equity. It is possible that the imputed values of net worth are not independent and simply reflect the traditional measures of SEP.

One approach to obtain more accurate wealth measures in future studies is to follow the comprehensive wealth measurement strategy utilized in the Panel Survey of Income Dynamics (PSID). The PSID includes eight categories for wealth: equity in real estate, equity in business or farm, equity in motor vehicles, equity in stock, transaction

accounts such as savings and money market accounts, other assets such as bonds and cash value in life insurance, equity in individual retirement accounts (IRAs), and value of debts which included debt besides mortgage or auto loans (PSID Supplementary Wealth Files, 2009). Respondents were asked to estimate positive and negative balances for each asset and debt category. Rather than asking respondents to engage in the complex task of summing all assets and subtracting debts, an algorithm was constructed to compute the net worth variable. PSID researcher then imputed wealth components, computed housing equity, and constructed estimates for total family wealth with and without housing equity. They used the hot deck imputation technique for imputation of the missing data in the wealth components. The PSID approach is likely more accurate because it allows for respondents to estimate each category of assets and debts individually and an algorithm was developed to assess the net worth of individuals. This would reduce the amount of measurement error and may yield a more accurate assessment of wealth for respondents than is found in the NSAL. Additionally, Gordon Nembhard (2006) highlights the importance of accounting for land ownership and home equity in the estimation of wealth. In future studies, it may be beneficial to determine the portion of net worth derived from home equity versus other sources of wealth by using the PSID approach to estimating net worth. The consideration of racial neighborhood composition is also an important factor to investigate whether African Americans who live in predominantly White areas have homes that are worth more than African Americans who live in more racially homogenous areas.

Future Directions

The limitations of this dissertation work highlight a number of future researcher directions. One future direction is to conduct an in-depth investigation among African Americans to determine whether they perceive unfair racial barriers to their advancement, and whether these perceptions affect their mental health. Several additional stressors related to perceptions of discrepancies between aspirations and achievement warrant investigation among upwardly mobile and middle class African Americans.. These stressors could negatively affect the mental health of African Americans. It could be that African Americans, particularly those who have achieved higher socioeconomic position, lament over their perceived social and economic disparities compared to Whites, as a number of scholars argue (Cole & Omari, 2003; Colen, et al., 2006; Cose, 1993; Forman, 2003; Sellers et al., 2009). For instance, goal striving stress, which is defined as stress resulting from perceived discrepancies between individuals' aspirations and their actual achievements (Sellers & Neighbors, 1999), has been shown to negatively effect aspects of mental health. Sellers and Neighbors (2008) found that increased levels of goal striving stress were related to lower levels of happiness, life satisfaction, self-esteem, and higher levels of psychological distress among African American respondents in the National Survey of Black Americans.

Another stressor to consider is lifestyle incongruence. Dressler describes lifestyle incongruence as "the extent to which a high status style of life (based upon possession of material goods and exposure to mass media) exceeds an individual's occupational class" (Dressler, 1990). Dressler argues that the pressure to attain a "middle class lifestyle" is a potent stressor because of the limited economic resources of many African Americans.

He also argues that younger African Americans are more susceptible to depression due to lifestyle incongruence because they seek to acquire lifestyles that signal success before they have obtained the economic resources necessary to sustain middle class lifestyles. In his 1988 study, Dressler examined a sample of African American drawn from a predominantly African American neighborhood in the southern United States. He found that depression risk for younger low SEP African Americans was a function of lifestyle incongruity; depression risk for high SEP African Americans due to economic stress and role performance. For older African Americans, depression risk was a function of life events and unemployment.

Goal-striving stress and status incongruence may each assess different aspects of the unique threats to the mental health of African Americans. However, as Sellers and Neighbors (2008) state, few research studies have empirically examined the relationships between striving efforts, personal goals, status incongruence, and mental health among African Americans.

Additionally, there are other mental health indicators besides CIDI diagnosed depression may be important to consider in future analyses. Markers such as depressive symptoms, psychological distress, self-esteem, happiness, and mastery have been implicated as important mental health indicators (Neighbors, 1986; Sellers & Neighbors 2008).

There are also a number of future analyses that should be conducted as a result of this work. First, gender may be an important variable to explore separately for male and female respondents. Large scale epidemiologic studies, such as the Epidemiologic Catchment Area (ECA) study and National Comorbidity Study (NCS), have found that

women report twice the rate of depression that men report (Kessler et al., 1993). Thus it may be appropriate to analyze the sample separately by sex to determine how the relationship between SEP and depression varies according to sex.

It may also be advantageous to conduct a number of statistical interactions between variables. For instance, the interaction between age and various SEP markers such as income may be important to consider. Additionally, the relationship between age and SEP may be curvilinear. It is likely that respondents' financial resources vary according to age, such that people who are just beginning their professional careers or people who have retired have fewer financial resources than individuals who are we deeply embedded in their careers and who earn higher levels of income. The results garnered from this dissertation indicate that increased levels of SEP are positively related to reports of discrimination. We also observed that racial discrimination is related to increased odds of depression. A logical next step would be to examine the statistical interaction between SEP, racial discrimination and depression in order to determine how the relationship between racial discrimination and depression may vary as a function of SEP.

Social mobility is a major issue that has not been adequately addressed in this dissertation work. One future research direction to consider is the utilization of prospective studies to explore the process of social mobility among African Americans and its effect upon depression. There are not many studies that have collected longitudinal data on the SEP and depression of African Americans. One prospective study that may be optimal for analysis is the National Longitudinal Survey of Youth (NLSY), a nationally representative study of 12,686 men and women who were aged 14-

22 when they were first interviewed in 1979. The NLSY includes information on respondents' work and educational experience as well as wealth and includes multigenerational SEP information. While the NSLY does not include a strong measure of depression, the NLSY does collect information on respondents' self reported mental health as well as depressive symptoms assessed by the Center for Epidemiologic Studies-Depression (CES-D).

Another potential method to approach to assess social mobility may be to divide SEP variables into categories across the life course within the NSAL. For instance, one could utilize childhood indicators of SEP such as parental education and occupation or even childhood receipt of welfare to create a childhood SEP indicator (James et al., 2006). In the Pitt County study, James et al (2006) categorized 379 African American male study participants into low and high childhood SEP according to the parental occupation. They also created an index of adult SEP using a combination of respondents' occupation and education. James and colleagues then coded respondents into low and high adulthood SEP categories. Finally, they created a lifecourse measurement of SEP using the childhood and adulthood SEP categories. The lifecourse SEP categories they created included low childhood/low adulthood, low childhood/high adulthood, high childhood/low adulthood, and high childhood/high adulthood. A similar approach could be used with the SEP variables within the NSAL to create a lifecourse perspective of SEP and to determine how different mobility trajectories (such as downward, upward, and stable) affect depression and other mental health indicators. Additionally, the utilization of high-effort coping strategies as well as exposure to important stressors such as racial discrimination may vary according to the mobility status of respondents.

Mobility is also an important issue to consider in the background of the economic recession that has recently impacted the United States. Oliver and Shapiro (2008) argue that African American homeowners are twice as likely to suffer sub-prime-related home foreclosures as White homeowners are, affecting a projected one in ten African American mortgage borrowers. Still, African Americans were disproportionately steered toward the risky sub-prime mortgages at the center of the current economic recession (Oliver & Shapiro, 2008). Spriggs (2008) argues that discrimination, in part, has contributed to the current debacle of the sub-prime market collapse and illustrates that racial redlining practices disproportionately lead middle class African American homeowners to unregulated and predatory mortgage lenders to seek the refinancing that African homeowners used to weather the storm of poor job growth and flat earnings of the Bush years. Since African Americans are more dependent on their homes as financial resources than Whites, predatory lending practices that have crippled the American economy have likely stripped many African Americans of the wealth they had accumulated through home equity because African Americans were disproportionately targeted for sub-prime mortgages (Oliver and Shapiro, 2008). The threat and experience of downward social mobility and its effect upon mental health may be a rich area of exploration for African Americans.

Conclusion

This dissertation adds to the public health literature by further developing the conceptualization and measurement of SEP while paying special attention to the social context of African Americans. Some of the unique merits that this work offers are the incorporation of varied measures of SEP, including measures of wealth and childhood

SEP, which provides a more accurate picture of respondents' levels of not only economic capital but also social and cultural capital as well. This dissertation also challenges the notion that economic resources are the lone answer to racial/ethnic health disparities. The incorporation of a diverse array of SEP indicators allowed for the observation of different relationships between SEP and depression among African Americans. The results of this dissertation indicate that without the inclusion of wealth indicators and parental education, the results of this study may have been very different. First, there would be no relationship observed between SEP and depression among African Americans if only the traditional SEP measures were incorporated into this study. Second, one would not observe the seemingly paradoxical relationship between two SEP indicators, home equity and parental education, and depression.

This work also illustrated the fact that African Americans encounter increased exposure to racial discrimination as they accumulate greater socioeconomic resources. Interestingly, despite increased exposure to racial discrimination, the relationship between SEP and depression remained constant. Household income and education remained negatively related to odds of depression while parental education and home value were both positively related to odds of depression. This finding suggests that the relationship between SEP and depression among African Americans does not operate through exposure to racial discrimination, rather it has an independent relationship. Nonetheless, racial discrimination remains an important psychosocial stressor that warrants continued examination in studies that investigate the occurrence of depression among African Americans.

Ultimately, this research could be important in the development of policy initiatives to help level the playing field in America and call for the development of progressive policies that reduce socioeconomic disparities in the United States that negatively alters the mental health of communities of color.

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