

Dealing with Racism: Black Middle-Class Health in the 21st Century

by

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Dissertation submitted in partial fulfillment of
the requirements for the degree of Doctor
of Philosophy in the Department of
Sociology in the Graduate School
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ABSTRACT

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Abstract

There is widespread evidence that health disparities between whites and blacks in the U.S. cannot be fully explained by inter-group socioeconomic differences. Further, research shows that racism plays a significant role in explaining racial health disparities. However, there is less research that attends to what psychosocial and socioeconomic resources may be protective of black middle-class health over time. My research starts to fill this gap by examining whether racial identity and childhood socioeconomic status are protective of black health over time.

In Chapter 2, I use data from the American Changing Lives Study (ACL) and examine whether a strong racial identity is a protective mechanism in the relationship between racism and two health outcomes: self-rated health and depressive symptoms. My findings suggest that whether racial identity is protective depends on the health outcome and the frequency of racism respondents experience. My results also indicate that middle-class is not consistently a protective factor for black health.

In Chapter 3, I use data from the National Survey of American Life (NSAL) and the ACL to investigate whether childhood socioeconomic status is associated with adult health for blacks, and particularly black women. I argue that relative childhood socioeconomic advantage is more important for disadvantaged race and race/gender groups. Further, using an intersectional approach, I argue that it is most important for black women. My findings indicate that the association of childhood socioeconomic status and adult health is significant for blacks, but not whites. I also find that childhood socioeconomic status is especially important for black women.

Dedication

To my wife, Heather Lynn.

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1. Introduction

1.1 Race, Class, and Health in the U.S.

Health research indicates that there are significant race-based disparities between whites and blacks¹ in the United States. For instance, research suggests that comparatively blacks have more functional limitations, higher mortality for conditions such as heart disease and lower self-rated health (Keppel, Percy and Wagener 2002; Kelly-Moore and Ferraro 2004; Hughes and Thomas 1998).

One of the most obvious explanations for significant racial disparities is group socioeconomic status differences. This line of research suggests socioeconomic status overwhelmingly explains racial health inequality (See Hout 2012). In other words, black poor health can be explained by greater concentration in low-status groups compared with whites. Accordingly, some studies find that when socioeconomic status is controlled, racial disparities in morbidity and functional limitations are greatly reduced or eliminated (Pais 2014; House, Kessler and Herzog 1990; Guralnik et. al 1993). However, subsequent evidence largely suggests accounting for socioeconomic status does not fully explain racial health inequality (Turner et. al 2017; Williams et. al 2016; Brown et. al 2012; Miles 2008; Kelly-Moore and Ferraro 2004²); race-based disparities persist when socioeconomic resources are accounted for in statistical models.

Recent research explores the role of racism in explaining racial health disparities (Williams and Mohammed 2013). Scholarship interested in identifying pathways through

¹ This does not generally apply uniformly to mental health where racial disparities are less pronounced, non-existent or favor blacks.

² Kelly-Moore and Ferraro (2004) find that controlling for SES eliminates a significant effect of diverging trajectories, but they still find significant differences in disability levels between blacks and whites.

which racism affects health mostly focuses on three dimensions: structural racism, cultural racism and everyday (perceived) racism (Williams and Sternthal 2010).

1.2 Racism and Health

From a structural perspective (for a detailed discussion on structural racism see Bonilla-Silva 2018;1999), scholars argue institutional racism produces negative health effects. Health scholars posit that a potent source of institutional racism that has health implications is residential segregation. In fact, some scholars argue that residential segregation may a fundamental cause of racial health disparities (Williams and Collins 2001). These scholars theorize that residential segregation affects health through inferior access to quality education, adequate housing, access to medical care, exposure to higher levels of environmental toxins and disproportionate incarceration rates (Williams and Mohammed 2013; Alexander 2011; Williams and Collins 2001). Kramer and Hogue (2009) find residential segregation is significantly and positively associated with higher mortality rates among adults and infants. Beyond residential segregation, researchers explore other institutional racism mechanisms. Through a national and local sample, Forman (2003) finds racial labor segmentation (blacks being assigned to less desirable positions with little authority and limited occupational mobility) is associated with decreased level of psychological well-being. Lukachko and coauthors (2013) argue that structural racism, manifest through suppression of political participation, blocked opportunities and disparate judicial outcomes, has a significant effect on health. Specifically, they find that blacks living in states with higher structural racism levels are at higher risk for heart attacks. Structural racism generally had no effect on heart attack likelihood for whites.

Two other forms of racism health scholars explore are cultural and internalized racism. Cultural racism is rooted in racial and cultural ideology of white superiority. Negative minority representations in media outlets such as newspapers and television persist, albeit in a less explicit manner, in the 21st century (Goff et. al 2008; Weisbuch, Pauker and Ambady 2009). One particular response from targeted racial-ethnic groups is to internalize these negative representations. Internalization has been shown to have negative effects on self-esteem and overall psychological well-being (Kwate and Meyer 2011). Taylor and Jackson (1991; 1990) indicate that increased cultural racism internalization is associated with higher alcohol consumption and psychological distress while Chamber and colleagues (2004) find that internalization of negative representations puts women at higher risk of being overweight or obese.

While structural racism is pervasive, scholars also explore how perceived discrimination affects mental and physical health. I pause here to say that the effect of racism on health is not limited to whether targets of discrimination perceive it. In fact, research suggests that structural racism in the Post-Civil Rights Era is covert and seemingly non-racial to the point where it is difficult to make claims about being discriminated against (Bonilla-Silva 2018). That being said, research devotes attention to how awareness of discriminatory race behavior directed at targets is associated with mental and physical health. Overwhelmingly, perceived discrimination is associated with a host of negative health outcomes. Some studies show perceived discrimination is related to risk factors such as avoiding or delaying medical attention for health conditions (Wagner and Abbott 2007; Facione and Facione 2007). Other studies document perceived discrimination's association with increased smoking and alcohol consumption (Landrine

2006; Terrell et. al 2006). This association, however, is not limited to risk factors. Harris and colleagues (2006) find that perceived discrimination is associated with self-rated health, functional health and self-reported heart attacks. Lewis and collaborators (2006) also suggest perceived discrimination affects likelihood of coronary artery calcification and Schulz and her coauthors (2006) link it to changes over time in self-rated health. Most recent research suggests that “everyday discrimination” is associated with elevated blood pressure, low infant birth weight and mortality (Lewis et. al 2009; Earnshaw et. al 2013; Barnes et. al 2008). What the literature reveals is how individuals interpret what happens to them is an important aspect of how racism may affect health. This does not mean structural and/or cultural racism operate only if the individual perceives such mechanisms. Rather, perceived racism may operate in ways that differ from the other two main pathways.

1.3 Contributions of the Dissertation

The above research documents the increasing focus on racism as an explanatory variable for racial-ethnic health disparities. One understudied area in this line of research concerns what social resources racial minorities may possess that potentially buffer the effects of racism, in all its manifestations, on health (Pascoe and Richman 2009). A recent issue in *Journal of Gerontology: Psychological Sciences* is an important exception and represents a first step toward understanding psychosocial mechanisms that are protective of black health over time (see Nguyen et. al 2018; Brown and Hargrove 2018; Wheaton et. al 2018). Nevertheless, this issue specifically focuses on the health of black men and does not analytically focus on the black middle-class. Therefore, there is still

considerable research needed to understand what resources and experiences are protective for black middle-class health.

One of the main contributions of this dissertation is the application of a life course perspective to analyzing protective psychosocial and socioeconomic resources for black health. The life course perspective posits that understanding social processes involves taking a long-term analytical lens examining different trajectories or paths (George 2013). This has specific implications for research on race, racism, and health. Most research on racial discrimination and health (especially those examining potential protective mechanisms) is cross-sectional and potentially misses long-term temporal patterns that cannot be observed without the use of longitudinal data. Another life course principle I incorporate into this project is the linked lives perspective. Linked lives suggest social relationships significantly shape many health outcomes (George 2013). Thus, parental socioeconomic resources may have significant and long-term consequences for children (see Streib 2015). In the current project, I explore this principle by examining whether childhood middle-class status (measured by parental education) is a protective factor for blacks. Further, many life course studies suggest that childhood is a critical period in the life course. Hence, childhood conditions have far reaching consequences into adulthood (Pavela 2017; Montez and Hayward 2014; Hayward and Gorman 2004). The linked lives principle supports the idea that parental socioeconomic status has significant consequences for health outcomes, but this is understudied as it relates to the black middle-class.

Using a life course perspective, my dissertation aims to contribute to research on which psychosocial and socioeconomic resources are protective of black middle-class

health over the life course. Further, I examine black middle-class status in adulthood and childhood to explore how middle-class status at different points in the life course impact health outcomes.

1.4 Dissertation Overview

1.4.1 Chapter 2 Overview: Racism, Racial Identity, and Health Outcomes Over Time

My first dissertation paper investigates whether racial identity acts a protective mechanism in the relationship between racism and health over time. It is well established that racism plays a significant role in explaining U.S. racial health disparities (Williams, Priest, Anderson 2016). However, as mentioned above, there is less research dedicated to understanding what resources are protective of black middle-class health. Further, most available studies on this topic are cross-sectional and do not address how resources may be protective of changes in health over time. Using the American Changing Lives (ACL) study, I explore the association between perceived racism, racial identity, and changes in two health outcomes: self-rated health and depressive symptoms.

1.4.2 Chapter 3 Overview: Childhood Socioeconomic Status and Adult Health Among Black Americans

My second dissertation paper explores whether the association between childhood socioeconomic status and health significantly varies by race and race/gender. Researchers have established that blacks are subject to various type of racism that are linked to negative health outcomes. Childhood socioeconomic status has also been shown to be significantly associated with adult health. Mostly childhood socioeconomic status works through adult socioeconomic status (See Turner, Thomas and Brown 2016). However, my research explores whether childhood middle-class status is more important for blacks,

and especially black women, who are more likely to face structural, cultural, and interpersonal racism throughout the life course. Therefore, using an intersectional approach, I investigate whether childhood socioeconomic status, net of adult socioeconomic factors, is associated with adult health for disadvantaged race and race/gender groups. Using data from the National Survey of American Life (NSAL) and the ACL, I analyze whether the association between childhood socioeconomic status and health is different for blacks and whites. I pay special attention to this relationship among black women.

2. Being Black and Dealing with Racism: Can A Strong Racial Identity Protect Black Health?

2.1. Introduction

The growth of the black middle-class (Landry 1987) has important implications for scholars interested in understanding how race and class affect long-term health trends. While scholars generally find that high socioeconomic status results in better health (Phelan, Link and Tehranifar 2010; Link and Phelan 1995), racial health disparities generally persist, even after controlling for group socioeconomic status differences (Brown et.al 2012; Miles 2008; Kelly-Moore and Ferraro 2004).

Recent health stratification research is increasingly sensitive to the role perceived racism³ plays in shaping physical and mental health outcomes (Williams and Mohammed 2009; Williams and Sternthal 2010). Perceived racism is generally associated with negative mental and physical health (Wagner and Abbott 2007; Lewis et. al 2009; Barnes et. al 2008). This research provides important knowledge as to how racism may shape health outcomes. However, little research specifically examines this relationship among the black middle-class. Few studies examine long-term temporal patterns between perceived racism and health (Williams and Mohammed 2009). Further, even less is known about what social and economic resources black middle-class individuals possess that may buffer the effects of perceived racism on health over time.

In this paper, I examine the extent to which strength of racial identity buffers the relationship between perceived racism and health among the black middle-class. Using

³ I use the terms perceived racism and perceived discrimination interchangeably throughout this chapter. The literature sometimes refers to the latter and other times the former when discussing the role of race-based unfair treatment on health.

longitudinal panel data from the American Changing Lives Study (ACL), I investigate strength of racial identity's attenuating role between perceived racism and mental/self-rated health.

2.2 Background

In the past 50 years, U.S. blacks have experienced some upward class mobility. A growing number of blacks are employed in professional occupations such as medicine, law, engineering and banking. For instance, recent estimates suggest that approximately 25 percent of black males and 36 percent of black females work in professional and managerial occupations (Bureau of Labor Statistics 2017). The sociological imagination on blacks mostly focuses on the persistently poor. While this group warrants significant research attention, recent research investigates black middle-class experiences and how they may or may not differ from those of the working class (Harvey-Wingfield 2013; Harvey-Wingfield and Alston 2012; Feagin 1991; Cose 1994). Despite socioeconomic success, middle-class blacks continue to experience racism (Smith et. al 2007; Feagin and Sikes 1995). Black socioeconomic success creates certain material advantages yet does not erase external physical features positioning them at the bottom of the racial hierarchy. In fact, some research suggests that middle-class blacks report experiencing more racism than working-class blacks (see Jackson and Williams 2006). Therefore, compared to whites, black class position offers lower returns to occupational success, income and, health.

As a group, the black middle class has implications for health outcomes. Health scholars generally find that socioeconomic status has protective health effects and may be a fundamental cause of health outcomes (Link and Phelan 1995). Typically, increased

income and education reduce stress exposure and buffer stressors, but socioeconomic resources may be less effective against racialized stress (Mirowsky et. al 2000). Indeed, most research finds that significant race health disparities exist even when adjusting for socioeconomic status differences (Sternthal, Slopen and Williams 2011). Studies that account for racial socioeconomic disparities find that black adults have worse health⁴ outcomes compared with their white counterparts (Brown et. al 2012; Williams and Sternthal 2010). This statement though is not straightforward. While socioeconomic resources matter, they do not necessarily provide a consistent increasing return to health. Evidence for the unequal returns hypothesis implies that high-status blacks receive less of a health benefit for increased levels of education (Cummings and Jackson 2008; Farmer and Ferraro 2005) than their white peers. This “unequal returns” finding is consistent with racial disparities in employment and occupational attainment (Pager et. al 2009; Pager 2005; Wilson and Roscigno 2010).

While some explanations for persistent health disparities focus on biological factors (Burchard et. al 2003), sociological accounts increasingly explore structural and social psychological factors. Despite social and economic resources, racial minorities face chronic racism (Williams 2004; Jackson 2005) and inferior access to medical services, insurance and preventative care (Fang and Alderman 2004). Studies establish that racial health disparities exist, but little is known about the black middle class and even less is known about what social resources may mitigate the negative effects of racism on health.

⁴ This applies more to physical health outcomes. Mental health outcomes research generally suggests that either blacks are advantaged or there are no significant race differences (Keyes 2009). This is referred to as the black mental health paradox.

In the current study, I use stress process theory and the life course perspective to understand the extent to which the effects of racism on mental and self-rated health are buffered by strength of racial identity. The stress process model is useful for understanding and analyzing the effect of racism on mental health. It posits that individuals are differentially exposed to stress according to structural position. In this case, racism is a stressor which individuals differentially experience based on their position in the racial hierarchy. In turn, individuals possess different mediating and moderating resources to cope with stressors. These resources may mitigate stress' effect on health (Pearlin et. al 1981).

The life course perspective posits that understanding individuals' current circumstances involves taking a long-term analytical lens (George 2013). This has specific implications for research on racism and health. Most research on racism and health is cross-sectional and potentially misses long-term temporal patterns that cannot be observed without longitudinal data. A life course focus on changes over time enhances the study of racism and health. The life course perspective does not discount that group patterns are important, but it emphasizes that within-group variation and long-term changes can help us understand how certain social processes operate over time. Most race and health studies focus on between-group variation, potentially overlooking within-group variation. Additionally, life course research focuses on the extent to which frequency of exposure impacts intragroup variation. In this case, frequency of perceived racism over time may have important consequences for black middle-class individuals. Single episodes or occasional perceived racism may have different long-term consequences than frequent or chronic perceived racism.

2.2.1 Perceived Racism and Health

Recent research explores the role of racism in explaining racial health disparities (Williams and Mohammed 2009). Scholarship interested in identifying pathways through which racism affects health mostly focuses on three dimensions: structural racism, cultural racism and everyday (perceived) racism (Williams and Sternthal 2010).

The focus of the current paper is perceived racism. There is no doubt that structural racism is pervasive. Further, the effect of racism on health is not limited by whether targets of racism perceive it. In fact, research suggests that structural racism in the Post Civil-Rights Era is covert and seemingly non-racial to the point where it is difficult to make claims about being discriminated against (Bonilla-Silva 2018). That being said, research also devotes attention to how awareness of discriminatory race behavior directed at targets is associated with mental and physical health.

Overwhelmingly, perceived discrimination is associated with a host of negative health outcomes. Some studies show perceived discrimination is related to risk factors such as avoiding or delaying medical attention for health conditions (Wagner and Abbott 2007; Facione and Facione 2007). Other studies document perceived discrimination's association with increased smoking and alcohol consumption (Landrine 2006; Terrell et al 2006). This association, however, is not limited to risk factors. Harris and colleagues (2006) find that perceived discrimination is associated with poorer self-rated health, worse functional health and self-reported heart attacks. Lewis and collaborators (2006) also suggest that perceived discrimination affects the likelihood of coronary artery calcification and Schulz and her coauthors (2006) link it to changes over time in self-rated health. Most recent research suggests that "everyday discrimination" is associated

with elevated blood pressure, low infant birth weight and adult mortality (Lewis et. al 2009; Earnshaw et. al 2013; Barnes et. al 2008). What the literature reveals is that how individuals interpret what happens to them is an important aspect of how racism may affect health. This does not mean structural and/or cultural racism operate only if the individual perceives such mechanisms. Rather, perceived racism may operate in ways that differ from the other two main pathways.

The above research documents the increasing focus on racism as an explanatory variable for racial-ethnic health disparities. One understudied area in this line of research concerns what social resources racial minorities may possess that potentially buffer the effects of racism on health (Pascoe and Richman 2009). Some research has investigated buffering mechanisms. These studies mostly focus on religion and racial identity as resources that buffer the effects of perceived discrimination on health. However, most of this research does not seek to parse out the particular experience of the black middle-class. Given that most probability samples include a small number of black Americans coupled with the historical concentration of blacks among the poor makes this type of investigation difficult. Also, the general lack of longitudinal data that include sufficient numbers of blacks to understand how these mechanisms operate over the life course has been problematic for scholars interested in these topics.

2.2.2 Strength of Racial Identity as a Buffering Mechanism

Racial identity is a multi-dimensional construct that includes belonging, positive group evaluation, public regard, racial centrality and involvement in racially defined activities (Cokley 2007; Helms 1990). Scholars generally conceptualize and measure this construct as an individual-level resource. Researchers posit that a strong racial identity

can buffer stressors (Phinney et. al 2001) and theorize that it works through two mechanisms to buffer individuals from the negative effects of racial discrimination: higher levels of self-esteem and increased social support (Hughes et. al 2014).

Racial identity is theorized to protect self-esteem for target groups. Higher levels of racial identification can aid racism targets process negative racial events in ways that buffer its negative effects on self-esteem. Targets with stronger racial identity are more likely to attribute negative racial experiences to uncontrollable external characteristics rather than stable internal ones (Branscombe, Schmitt and Harvey 1999; Weiner 1985). Rather than internalize racial insults as personal failings, targets are able to identify when racism is aimed at the group the individual belongs to rather than their person (Brondolo et. al 2009; Cross 2005). Therefore, racism is seen as a function of the dominant group's view toward the target group instead of an individual failing, thus providing a buffer to self-esteem injury. Racial identity is also associated with active/approach coping mechanisms (Scott 2003; Phinney and Chavira 1995). Racial identity formation provides minority group members with opportunities to share coping strategies including cultural social support. In turn, this support has the potential to buffer some of the negative effects that perceived racism has on health.

Substantial research has investigated the relationship between perceived racism and health. Most research models racial identity as a main effect. Fewer studies examine whether racial identity serves as a buffering mechanism between perceived racism and health. In both cases, this literature focuses almost exclusively on mental health outcomes such as depressive symptoms, psychological well-being and self-concept. The current research literature does not explore whether racial identity operates similarly for mental

and self-rated health. In addition, the majority of the work in this area does not examine the long-term role that racial identity may play in shaping health trajectories.

Historically, research findings on the effects of racial identity on mental health is mixed. Some investigators find that racial identity intensifies the negative effect of perceived racism on mental health (Noh et. al 1999). Others indicate that strength of racial identity weakens this relationship (Mossakowski 2003; Fischer and Shaw 1999). A few scholars find support for only certain racial identity dimensions as buffering mechanisms (Hughes et. al 2013). These divergent findings, as least in part, result from sample and measurement differences.

Some researchers conclude that racial identity exacerbates the effects of racism on mental health. Noh and coauthors posit that a strong racial identity augments offenses precisely “because of the perceived importance of the disparaged identity.” (1999: 13). Their study focuses on Asian refugees in Canada and they suggest that strong racial-ethnic identity is associated with a confrontation versus forbearance coping strategy; the latter has been found to be more effective as a coping mechanism among Asian immigrants. Lee (2003), contrary to his research expectations, finds that racial-ethnic identity does not moderate the effect of perceived racism on health. In another study, Lee (2005) finds that only one racial identity dimension (pride) acts as a buffering mechanism in this relationship, and then only in certain cases. Important for this study, he finds that this racial identity dimension only acts as a buffer when perceived discrimination is low which suggests that frequency of racism has important implications for buffering mechanisms. Overall, these negative and null results are consistent with an earlier finding by Sander Thompson (1996) among U.S. blacks.

The majority of research that investigates racial identity as a buffering mechanism, however, suggests that it weakens the perceived racism-mental link. Bank and Kohn-Wood (2007) find that racial identity centrality buffers the effect of perceived racism on depressive symptoms. In a similar study, Mossakowski (2003) also finds that ethnic identity buffers racism's effect on depressive symptoms. Fischer and Shaw (1999) also report findings suggesting that racial identity moderates the effects of racism on mental health for black young adults. Other studies indicate that racial minorities expressing stronger identification with their self-identified racial group generally have better psychological functioning and experience less stress (Kiang et. al 2006; Neblett, Shelton and Sellers 2004).

2.2.3 Hypotheses

The attempts to understand how racial identity affects health outcomes focus on two main dimensions: closeness to racial group and positive group evaluation. Recently, Hughes and collaborators (2013) report a significant positive effect of racial identity on mental health, but argue this only works through positive group evaluation and not closeness to racial group. Also, while some researchers emphasize that racial identity is multidimensional and that different dimensions produce different results (Seller et. al 2006; Bynum, Burton and Best 2007), overall the research literature suggests that racial identity works to attenuate the negative effects of perceived racism on mental health. Important for the current study, the overwhelmingly majority of studies that sample U.S. blacks find moderating effects. The few studies that identify negative buffering effects sample Asian respondents. The latter studies focus on cultural-specific coping strategies coupled with strong racial-ethnic identity that tends to intensify the negative impact of

perceived racism on mental health. Only one study finds similar results among U.S. blacks (Sander Thompson 1996). None of the studies that model racial identity as a buffering mechanism analyze health outcomes other than mental health, especially depression. Nonetheless, I expect racial identity to work in similar ways for both depressive symptoms and self-rated health. Further, I expect strength of racial identity to have a positive main effect on self-rated health and depression.

Hypothesis 1: Among black Americans, strength of racial identity will be positively associated with self-rated health and negatively associated with depressive symptoms.

The life course perspective argues that beyond experiencing certain events such as discrimination, research investigations need to take duration and frequency of exposure into account (George 2013). This matters for the current study because some studies indicate that racial identity may work differently depending on how persistently targets experience racism. Lee (2005) finds that racial pride only moderates the effect of perceived racism on mental health when perceived discrimination is low. Nonetheless, this study focuses on Korean Americans and not black Americans. As mentioned above, most studies that focus on black Americans find that racial identity is protective. Branscombe, Schmitt and Harvey (1999) also discuss different expectations based on exposure length, but they do not test this directly. The point here is that a strong racial identity may be more protective in the face of higher levels of perceived racism. Therefore, I hypothesize that:

Hypothesis 2: Among black Americans, stronger racial identification coupled with higher levels of perceived racism will result in better self-rated health and fewer depressive symptoms.

Beyond increased social and economic resources, black upward mobility is often accompanied by some attitudinal changes. Black middle-class individuals have certain views (i.e. beliefs about inequality) that significantly differ from black working-class individuals (Shelton and Greene 2012). Nonetheless, most research suggests that middle-class blacks do not significantly differ from working-class counterparts in racial solidarity and identity (Lacy 2007; Shelton and Emerson 2010). Generally, research on racial identity and class argues that upward mobility weakens racial identity, but these results have not been extended to U.S. blacks. While some studies identify class differences in political party affiliation (Dawson 1994) and inequality attributions (Shelton and Greene 2012), most studies fail to identify class differences in group solidarity (Shelton and Wilson 2006). Hence, while some middle-class blacks have more conservative views on matters such as poverty explanations, strength of racial identity is not significantly different from that of working-class blacks. Given the research, I expect to find no class differences in strength of racial identity between working and middle-class blacks.

Hypothesis 3a: Strength of racial identity will be positively associated with better self-rated health and fewer depressive symptoms for both middle and working-class blacks.

While a few studies suggest that racial identity amplifies the negative effects of racism (see Lee 2003; Noh et al. 1999), most of the research that models racial identity as a buffering mechanism indicates that it weakens the negative effects of racism on health (Kohn-Wood 2007; Kiang et. al 2006; Mossakowski 2003). It is important to note that the previous scholars mostly examine mental health outcomes such as psychological functioning and depressive symptoms. There is little research on whether racial identity is protective for physical health outcomes. Nonetheless, I expect strength of racial identity to work similarly for self-rated health and depressive symptoms.

Hypothesis 3b: Strength of racial identity will have a positive buffering effect on the association between perceived racism and both self-rated health and depressive symptoms for both middle and working-class blacks.

2.3 Data and Methods

I use the American Changing Lives (ACL) study, a nationally representative panel study funded by the National Institute on Aging (House, Lantz and Herd 2005). The ACL currently has five waves of panel data collected in 1986, 1989, 1994, 2001-2002 and 2011. At Wave 1, this study includes 3,617 respondents; follow-up waves have N=2,867 (Wave 2), N=2,562 (Wave 3), N=1,787 (Wave 4) and N=1,427 (Wave 5).

These data have three main strengths that fit the current research questions. First, this study oversamples blacks at twice the proportion that they exist in the population, which makes comparisons between low-status and high-status blacks possible. Despite the above-mentioned fact concerning the growing numbers of middle-class blacks, as a group blacks remain overrepresented in the working-class. Thus, many surveys do not

have enough middle-class blacks to make adequate comparisons. Second, in order to apply life course principles analytically, the longitudinal panel design allows me to examine intra-group variability over time. Finally, the study has item measures related to the research questions.

2.3.1 Dependent Variables

I measure *depressive symptoms* at each wave using an 11-item subset of the 20-item Center for Epidemiological Studies Depression Scale (CES-D; Radloff 1977). Respondents were asked how often in the past week they experienced feelings related to four domains: (1) depressed affect, (2) positive affect, (3) somatic symptoms, and (4) interpersonal relations. Valid responses range from 0 (never or hardly ever) to 2 (most of the time). The two positive affect items (“I enjoyed life” and “I was happy”) are reverse-coded. I use a composite CES-D score by summing the 11 items. Composite CES-D scores range from 0 to 22. The Cronbach’s alpha for the 11 items is .82 and .83 for Wave 1 and Wave 4 respectively. The questions and wording are in appendix A. The distribution of the CES-D scores was positively skewed. To reduce skewness and be able to compare across models, I standardize CES-D scores in the multivariate analyses presented in Table 4.

Self-rated health is a single item measured at each wave. This item ranges from a minimum value of 1 (excellent) to a maximum value of 5 (poor). I reverse code self-rated health so that higher values indicate better health (i.e. 1 = poor and 5 = excellent).

2.3.2 Operationalization of Black Middle-Class

There are debates as to what measures are best suited to capture black middle-class position (Marsh et. al 2007; Bowser 2007; Pattillo 1999; Landry 1987; Frazier

1957). Further, research shows that different class measures may have different associations with mental and physical health (Kim and Durden 2007). For the purposes of this paper, the black middle-class includes respondents who self-identify as black and have at least a college degree (16 years of education or more) in 1986 (Wave 1). Most research on middle-class blacks incorporates education as an indicator of class position. While some black middle-class scholars advocate for the use of multiple indicators (see Marsh et. al 2007), my definition focuses on educational attainment.

2.3.3 Stress Measure

*Perceived racism*⁵ is a measure of whether respondents report receiving unfair treatment because of their race. This item is measured in Wave 3. If respondents reported being treated unfairly because of their race, they received a follow-up question about the frequency of this discrimination. I use frequency of perceived racism as my measure of racism. Valid item responses range from 1 (often) to 4 (never). In this study, this item is reverse-coded so that higher values indicate more frequent perceived racism. I code the “often” and “sometimes” category as 1 and “rarely” and “never” as 0. Most discrimination studies account for whether respondents perceive they are discriminated against, but fewer studies account for the frequency of perceived discrimination.

2.3.4 Mediators/Moderators

Strength of Racial identity is measured using closeness to one’s racial group. This item is measured at Wave 3. Given the current debate in the research literature concerning which racial identity items are most salient for mental health (see Hughes et. al 2013) it would be ideal to have multiple measures; however, the ACL does not include

⁵ Most scholars investigating the relationship between perceived racism/discrimination and health use the Everyday Discrimination Scale (Williams et. al 1997). However, the ACL only includes this scale in waves 4 and 5.

other dimensions of racial identity. The item I use asks respondents to rate how close they feel to their self-reported racial group. Responses ranged from 1 (very close) to 4 (not close at all). This item is reverse coded so that higher values indicate increased feelings of closeness to one's self-identified racial group. My interest here is how a strong racial identity operates in the relationship between racism and health. Therefore, I code "very close" as 1 and "fairly," "not too close" and "not close at all" as 0.

2.3.5 Interaction Terms

To test for whether strength of racial identity may be more salient at different levels of perceived racism, I include an interaction term: perceived racism*strength of racial identity. In order to test whether strength of racial identity operates differently for middle-class blacks I include an interaction between middle-class and strength of racial identity. I also include an interaction term between middle-class and level of perceived racism.

2.3.6 Control Variables

Age is measured in number of years. *Sex* is a dummy variable with female coded as 1. *Region* is a dummy variable with South coded as 1 and all other regions coded as 0. *Religious service attendance* is a continuous variable that ranges from 1 (never) to 5 (at least once a week).⁶ All control variables are measured at Wave 1.

I include Wave 1 measures for both self-rated health and depressive symptoms to examine changes over time in each dependent variable. As noted previously, home ownership also is a control variable, with homeowners coded 1 and others coded 0.

⁶ I also ran models including Body Mass Index (BMI) and smoking as health behavior controls. However, they were non-significant in all models. Since they are not central to my analysis, I exclude them in the models presented.

2.3.7 Analytic Strategy

My main research questions concern black intra-group variability. Hence, for hypothesis testing, the sample is restricted to black respondents. For purposes of comparison, however, descriptive information for white respondents also is reported.

I use ordered logit for the self-rated health models and OLS⁷ regression for the depressive symptoms models. I use the same sequence of models for each dependent variable. Model 1 includes perceived racism, Wave 1 self-rated health or depressive symptoms and the middle-class measure. Model 2 adds age, sex, region and religious service attendance. Strength of racial identity is added in Model 3. In models 4, 5 and 6, I add the interaction terms. I only include one interaction term in each of these models. The interaction between perceived racism and strength of racial identity is in Model 4. The interaction between middle-class and strength of racial identity is tested in Model 5 and the interaction between middle-class and perceived racism is tested in Model 6.

2.4 Results

2.4.1 Descriptive Statistics

Table 1 shows basic descriptive statistics for model variables. I display long-term trends in depressive symptoms in Table 3. Approximately 26 percent of blacks in the ACL report experiencing discrimination sometimes or often. 56 percent have a strong racial identity. Approximately 8 percent of blacks in the ACL are middle-class using college degree as the threshold.

Table 1: Descriptive Statistics. ACL

| <u>Variable</u> | <u>Mean</u> | <u>SD</u> | <u>Minimum</u> | <u>Maximum</u> |
|--------------------------|-------------|-----------|----------------|----------------|
| <u>Self-Rated Health</u> | | | | |

⁷ Negative binomial models using a count of depressive symptoms yielded similar results to those presented here.

| | | | | |
|----------------------------|-------|-------|----|----|
| W1 | 3.33 | 1.20 | 1 | 5 |
| W4 | 3.13 | 1.06 | 1 | 5 |
| Depressive Symptoms | | | | |
| W1 | 4.75 | 4.05 | 0 | 21 |
| W4 | 3.60 | 3.63 | 0 | 20 |
| Middle-Class | .076 | .266 | 0 | 1 |
| Perceived Racism | .261 | .439 | 0 | 1 |
| Racial Iden. Strength | .562 | .496 | 0 | 1 |
| Age | 52.60 | 17.33 | 24 | 96 |
| Sex (Female =1) | .662 | .472 | 0 | 1 |
| South | .545 | .498 | 0 | 1 |
| Rel. Service Attend | 3.73 | 1.44 | 1 | 5 |

The mean age for blacks at Wave 1 is 52.60 years. Females comprise approximately two thirds of blacks in the ACL and approximately 55 percent of black respondents are in the South Census Region. Approximately 48 percent of blacks in the ACL own their homes. The average black respondent reports attending religious services approximately 2-3 times a month.

Many of the variables of interest vary by race/class position. Although my analytical focus here is intra-group variability, I include white working and middle-class respondents in some descriptive statistics where appropriate. The black working-class reports the lowest levels of self-rated health relative to white working and middle classes and the black middle-class (See Figure 1).

Middle-class respondents report better health compared with their working-class counterparts. Both the black and white middle-class means of 3.81 and 4.01 respectively indicate overall good health. Nevertheless, by Wave 4 the mean self-rated health scores for black middle-class respondents more closely resembles the white-working class than

the white middle class. While the Wave 1 gap between white and black middle-class respondents is .20, it increases to .47 at Wave 4. Similarly, while the mean gap between black middle-class and white-working class is .34 at Wave 1, this gap shrinks to .02 at Wave 4.

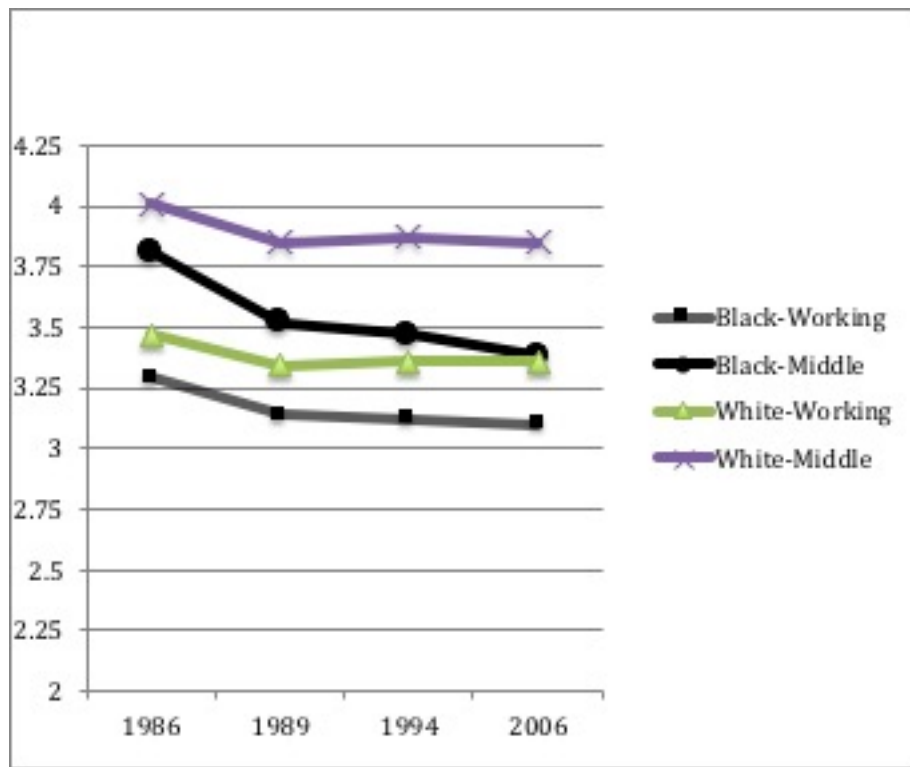


Figure 1: Self-Rated Health by Race/Class. ACL

The observed descriptive patterns for depressive symptoms are similar to self-rated health (See Figure 2). Black working-class respondents have the highest average depressive symptoms at all four time points. Black middle-class and white-working class means are similar in all four waves. White middle-class individuals report the lowest depressive symptoms of the four groups. Overall, at similar class positions, whites tend to report fewer depressive symptoms.

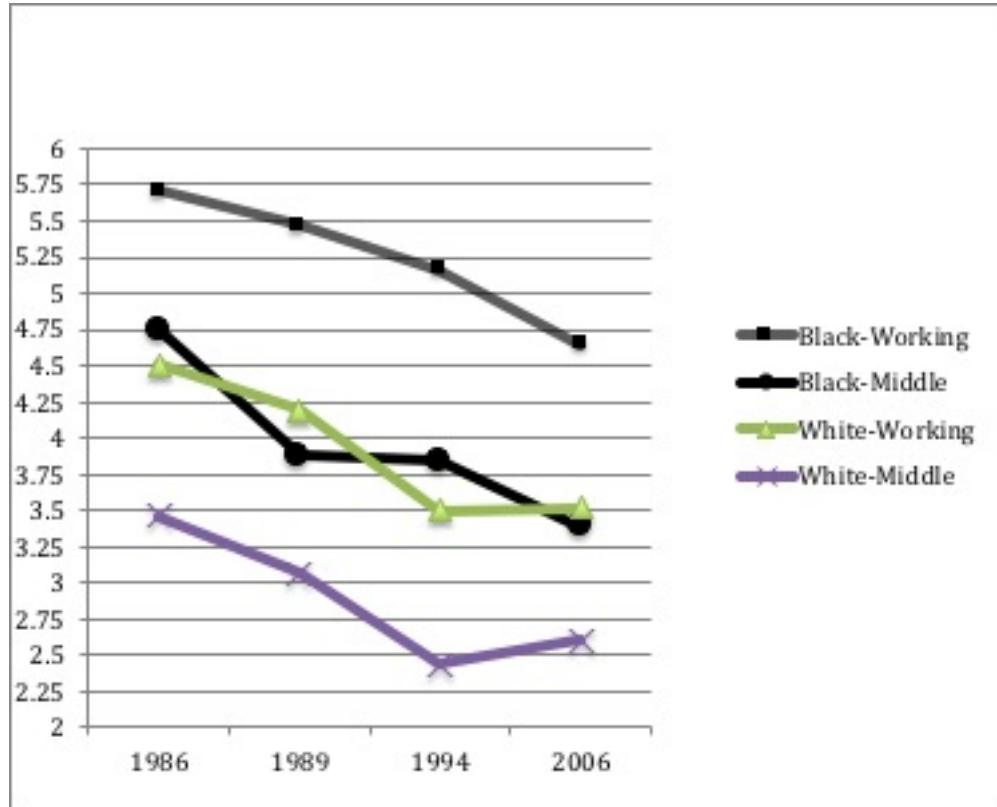


Figure 2: Depressive Symptoms by Race/Class. ACL

Approximately 10 percent of the total ACL sample reports experiencing racism often or sometimes. However, there are significant race and race-class differences. Overall, few whites report perceived racism experiences and this does not vary by class for whites; 5 percent of white-middle class and 4 percent white-working class individuals report experiencing perceived racism often or sometimes (See Figure 3). Blacks, on the other hand, report higher levels of perceived racism. Further, there are significant class differences between middle and working-class blacks. Approximately 23 percent of working-class blacks report experiencing racism often or sometimes compared to 55 percent of middle-class blacks.

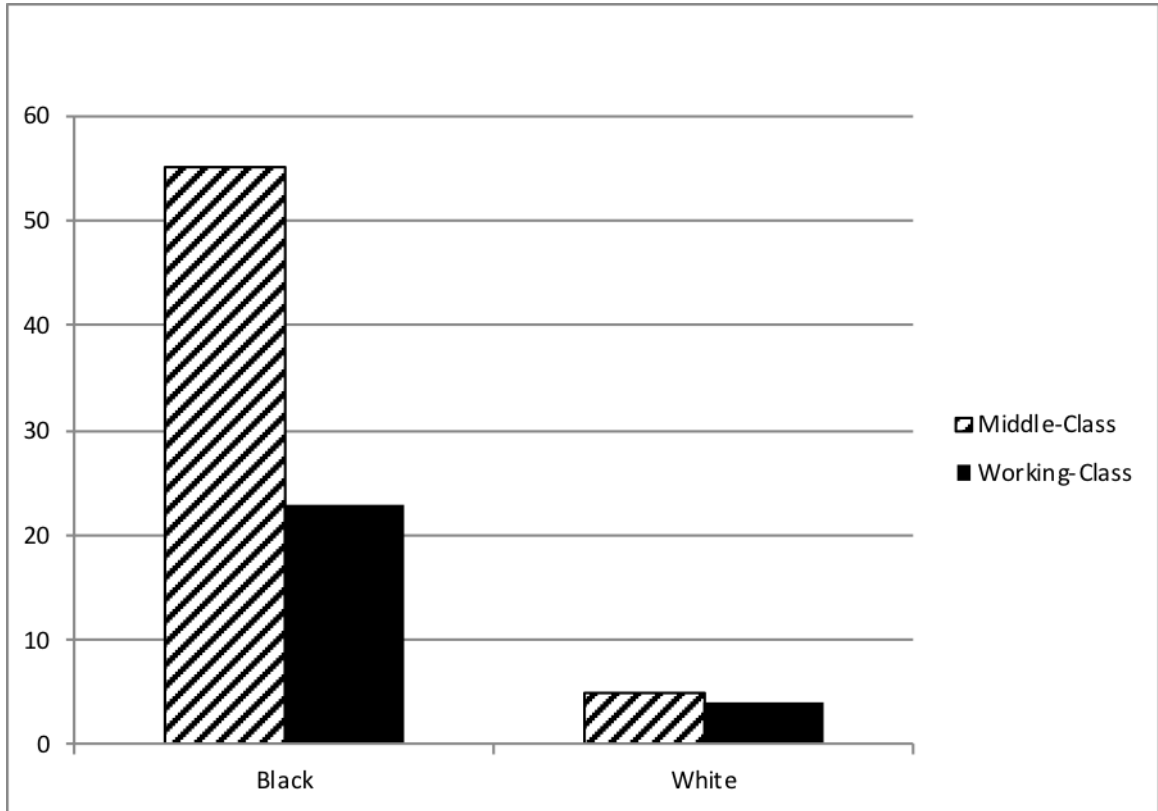


Figure 3: Experienced Racism Often or Sometime by Race/Class

Racial identity does not appear to vary significantly by class among blacks (Figure 4). Over 58 and 56 percent of working and middle-class blacks respectively report feeling very close to members of their race.

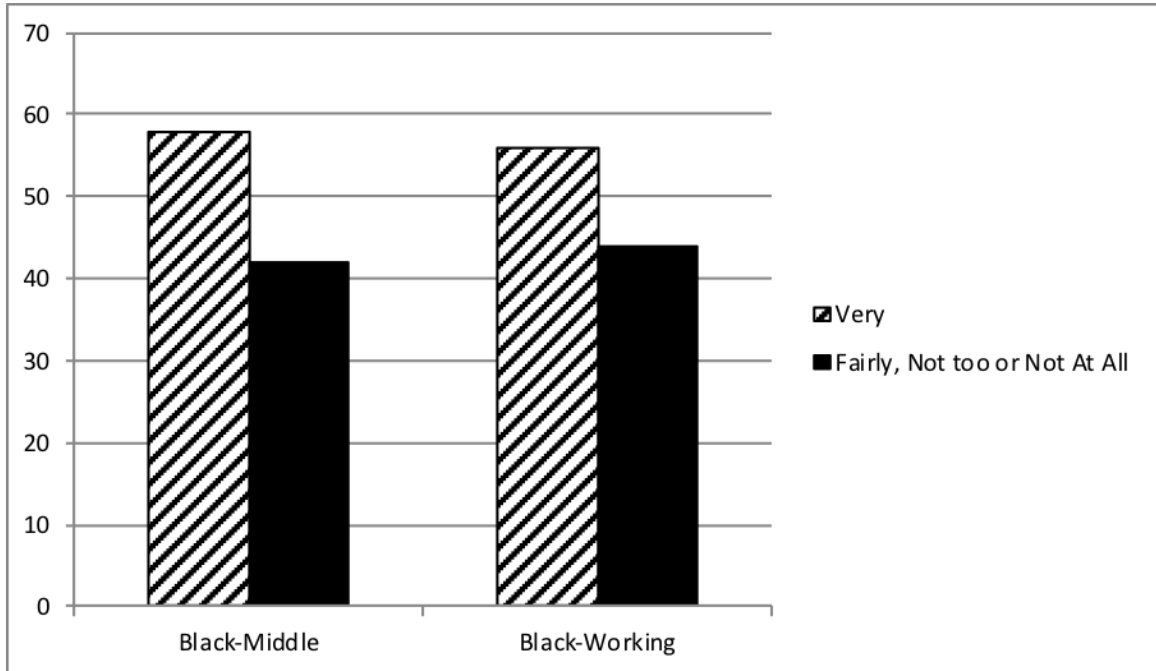


Figure 4: Closeness to Self-Identified Racial Group by Class among Blacks

Overall, the descriptive statistics suggest that there are significant differences between race/class groups on the main variables of interest in this paper. Blacks overall tend to report lower health and more depressive symptoms than whites in similar class positions. Blacks are also more likely to report experiencing racism. Further, black middle-class individuals report higher levels of perceived racism than their working-class peers. There are no significant class differences in blacks' strength of racial identity.

2.4.2 Self-Rated Health Multivariate Models

I estimate models for self-rated health using ordered logit. Model 1 (See Table 2) includes Wave 1 self-rated health, perceived racism and the middle-class measure. As expected, Wave 1 self-rated health is significantly associated with Wave 4 self-rated health. Specifically, those with better Wave 1 self-rated health are more likely to report better health in Wave 4. Also, as expected, perceived racism is significantly and

negatively associated with Wave 4 self-rated health. Blacks who report experiencing racism often or sometimes have worse self-rated health than blacks who say they rarely or never experience racism. In contrast, class position is not significantly associated with Wave 4 self-rated health. In Model 2, I add demographic controls. Age is negatively associated with Wave 4 self-rated and females have lower levels of self-rated health. I do not find any significant differences between the South and other U.S. regions. Religious service attendance also does not significantly affect later self-rated health. The effects of perceived racism and Wave 1 self-rated health remain significant after controlling for these demographic variables.

Table 2: Ordered Logit. Self-Rated Health Wave 4. ACL

| VARIABLES | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 |
|--------------------------|----------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| SRH Wave 1 | 0.752*** (0.0940) | 0.656*** (0.0984) | 0.625*** (0.0990) | 0.621*** (0.0993) | 0.625*** (0.0990) | 0.625*** (0.0991) |
| Perceived Racism | -0.612*** (0.205) | -0.719*** (0.208) | -0.716*** (0.211) | -0.188 (0.317) | -0.715*** (0.211) | -0.724*** (0.229) |
| Middle Class | 0.369 (0.290) | 0.348 (0.290) | 0.301 (0.291) | 0.318 (0.292) | -0.0104 (0.466) | 0.272 (0.424) |
| Age | | -0.0243*** (0.00734) | -0.0250*** (0.00747) | -0.0260*** (0.00748) | -0.0251*** (0.00747) | -0.0251*** (0.00749) |
| Female | | -0.504** (0.211) | -0.546** (0.214) | -0.532** (0.214) | -0.560*** (0.215) | -0.548** (0.215) |
| South | | 0.00830 (0.192) | -0.0164 (0.194) | -0.0555 (0.195) | -0.00584 (0.194) | -0.0179 (0.195) |
| Religious Attendance | | -0.0252 (0.0737) | -0.0408 (0.0742) | -0.0478 (0.0747) | -0.0335 (0.0746) | -0.0403 (0.0744) |
| Strength of Race Ident. | | | 0.237 (0.191) | 0.521** (0.230) | 0.177 (0.203) | 0.237 (0.191) |
| Racism X Racial Identity | | | | -0.920** (0.414) | | |
| Class X Identity | | | | | 0.498 (0.583) | |
| Class X Racism | | | | | | 0.0553 (0.580) |
| Constant | 5.175*** (0.410) | 3.315*** (0.647) | 3.247*** (0.652) | 3.335*** (0.655) | 3.235*** (0.652) | 3.240*** (0.656) |
| Observations | 388 | 388 | 388 | 388 | 388 | 388 |

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

In Model 3, I add strength of racial identity. Contrary to expectations, strength of racial identity is not significantly associated with Wave 4 self-rated health. Perceived racism, Wave 1 self-rated health, age and sex remain significant predictors in this model.

In model 4 I test the interaction between perceived racism and strength of racial identity.

The interaction is significant which suggests that strength of racial identity operates differently for those who experience low (or no) perceived racism and those who experience higher levels. Figure 5 presents the predicted probabilities of self-rated health for the four combinations of perceived racism and racial identity.

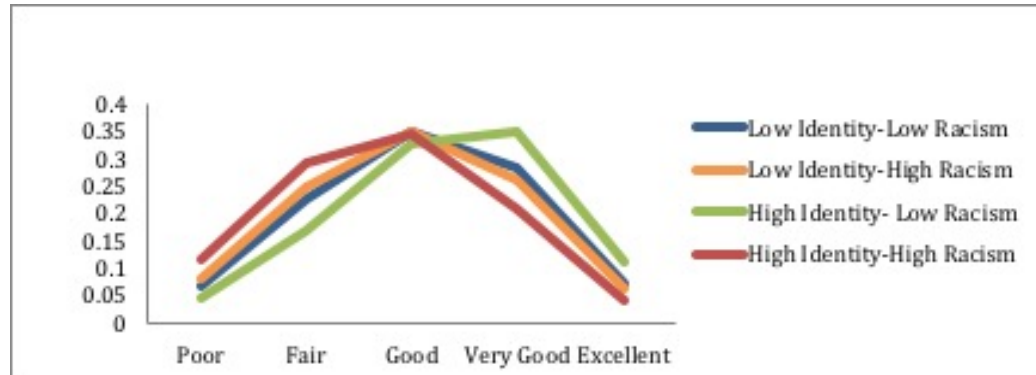


Figure 5: Predicted Probabilities. Racial Identity x Perceived Racism

Specifically, the highest levels of self-rated health are observed among respondents with a combination of low perceived racism and strong racial identity. On the other hand, strength of racial identity works differently with increased levels of perceived racism. Blacks with a strong racial identity and high levels of perceived racism have worse self-rated health. Blacks with lower levels of racial identity who experience either low or high levels of perceived racism have similar self-rated health. Also, the main effect of strength of racial identity is now significant with the inclusion of the interaction effect. Perceived racism is not significant in this model, but this is not surprising given that the interaction includes this variable. The other significant variables in Model 3 remain significant in Model 4. In Model 5, I introduce the interaction between middle-class and strength of racial identity. It is not significant. In Model 6, I

add the interaction between middle-class and level of perceived racism. It is also non-significant.

The results paint an interesting picture. First, Wave 1 class position is not significantly associated with Wave 4 self-rated health. Middle-class position does not lead to better self-rated health in Wave 4. Our main variable of interest, strength of racial identity is initially non-significant when first introduced into the regression suggesting that, contrary to what I expect, it is not positively associated with future self-rated health. However, the main effect appears to be masking a significant relationship between strength of racial identity and self-rated health. The significant interaction term suggests that a strong racial identity is protective for self-rated health for those who experience lower levels of perceived racism. In other words, those who experience lower levels of perceived racism have better health in Wave 4 if they have strong racial identity. Hence, Hypothesis 2 is not confirmed; contrary to my prediction, a strong racial identity and higher levels of perceived racism is not associated with better self-rated health. Hypotheses 1a and 1b are partially confirmed. Strength of racial identity does positively impact self-rated health and buffer the effect of racism on health, but its effects are not straightforward and depend on the level of racial identity. Strength of racial identity does not operate differently for middle and working-class blacks. Also, there is no significant interaction between middle-class and level of racism as it relates to self-rated health. Hence, hypotheses 3a and 3b are confirmed for self-rated health.

2.4.3 Depressive Symptoms Multivariate Models

As discussed above, I use a similar model approach to examine how strength of racial identity operates for both self-rated health and depressive symptoms. The

depressive symptoms models are OLS regression. Only Wave 1 depressive symptoms, perceived racism and middle-class are included in model 1 (See Table 3).

Table 3: OLS. Depressive Symptoms Wave 4. ACL

| VARIABLES | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 |
|------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Dep. Sym. W1 | 0.397*** (0.0427) | 0.389*** (0.0434) | 0.391*** (0.0441) | 0.391*** (0.0441) | 0.391*** (0.0441) | 0.391*** (0.0441) |
| Perceived Racism | 0.191* (0.101) | 0.196* (0.101) | 0.186* (0.102) | 0.230 (0.154) | 0.185* (0.102) | 0.215* (0.111) |
| Middle Class | -0.323** (0.142) | -0.292** (0.141) | -0.311** (0.143) | -0.308** (0.144) | -0.377 (0.239) | -0.202 (0.215) |
| Age | | 0.00372 (0.00358) | 0.00327 (0.00363) | 0.00322 (0.00364) | 0.00326 (0.00364) | 0.00339 (0.00364) |
| Female | | 0.0559 (0.104) | 0.0359 (0.106) | 0.0380 (0.106) | 0.0331 (0.106) | 0.0420 (0.106) |
| South | | 0.330*** (0.0936) | 0.345*** (0.0948) | 0.343*** (0.0950) | 0.347*** (0.0950) | 0.348*** (0.0950) |
| Religious Attendance | | -0.0459 (0.0365) | -0.0427 (0.0368) | -0.0429 (0.0368) | -0.0411 (0.0371) | -0.0440 (0.0369) |
| Strength of Race Ident | | | 0.0303 (0.0946) | 0.0552 (0.115) | 0.0185 (0.101) | 0.0311 (0.0947) |
| Racism X Identity | | | | -0.0765 (0.200) | | |
| Class X Identity | | | | | 0.102 (0.295) | |
| Class X Racism | | | | | | -0.195 (0.288) |
| Constant | -0.0826 (0.0578) | -0.297 (0.219) | -0.286 (0.224) | -0.297 (0.226) | -0.284 (0.224) | -0.301 (0.225) |
| Observations | 371 | 371 | 371 | 371 | 371 | 371 |
| R-squared | 0.206 | 0.233 | 0.236 | 0.236 | 0.236 | 0.237 |

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Similar to the self-rated health models, Wave 1 depressive symptoms significantly predict Wave 4 depressive symptoms. Perceived racism is not significantly associated

with Wave 4 depressive symptoms. I will note that it is significant at the .10 level and given the small number of blacks (371), it is worth speculating that a larger sample might produce a significant association between perceived racism and depressive symptoms. The direction of the association is what I expected: higher levels of perceived racism are slightly associated with higher levels of depressive symptoms. Here I find that middle-class status is protective for blacks. Middle-class blacks have significantly lower depressive symptoms relative to their working-class counterparts. In Model 2 I add the demographic controls. Age, sex and religious service attendance are not significantly associated with Wave 4 depressive symptoms. Southern blacks report more depressive symptoms relative to blacks living in other U.S. Census regions. In Model 3, I add strength of racial identity. Strength of racial identity does not significantly affect Wave 4 depressive symptoms. The inclusion of strength of racial identity does not significantly alter the middle-class or region effects. In model 4, I test the interaction between perceived racism and strength of racial identity. It is not significant. Hypotheses 1a, 1b and 2 are not confirmed for depressive symptoms. In model 5, I test the interaction between middle-class and strength of racial identity. It is also not significant. Finally, in model 6, I test the interaction between middle-class and perceived racism. This interaction is not significant. The results from Models 5 and 6 suggest that racial identity and perceived racism do not operate differently for middle-class blacks (relative to working-class blacks) as it relates to depressive symptoms.

2. 5 Discussion

In this paper, using the stress process model, I attempt to argue that strength of racial identity is protective against the negative effects of perceived racism on self-rated

health and depressive symptoms over time. The contributions of the current study are the longitudinal approach and attempt to unpack how this relationship operates, especially for middle-class blacks. My analyses suggest that strength of racial identity operates differently for self-rated health and depressive symptoms. Perceived racism negatively impacts later self-rated health for black Americans. While strength of racial identity initially appears to not be significantly related to self-rated health, the interaction between levels of perceived racism and strength of racial identity reveals that strength of racial identity is positive for those who experience lower levels of perceived racism. In terms of self-rated health, the opposite is true for those experiencing higher levels of perceived racism. Specifically, blacks that report experiencing racism often or sometimes have worse self-rated health if they have a strong racial identity. Hence, having a strong racial identity appears to be an important psychosocial resource for blacks who encounter lower levels of perceived racism. Some previous research suggests that racial identity works as a moderator by making targets more likely to attribute race-related discrimination to external factors rather than internalizing these experiences as personal failures (Brondolo et. al 2009; Cross 2005). My findings suggest that how racial identity affects health depends on the frequency of perceived racism. While I do not directly test whether strength of racial identity leads to different attributions for perceived racism, it is plausible that in the face of higher levels of perceived racism, targets may be more likely to internalize these experiences if their racial identity, here measured by feelings of closeness to own racial group, is relatively weak. Nonetheless, it worth considering that a strong racial identity may not able to counter the negative impact that persistent

perceived racism has on health. In fact, it appears that in the presence of higher levels of perceived racism, a strong racial identity is associated with relatively worse health.

My findings fit with previous research that suggests that black racial identity does not significantly vary by class (Lacy 2007; Shelton 2006). While some research contends that increased socioeconomic status may lead to different beliefs about the causes of inequality (Shelton and Greene 2012), it does not appear to affect how close blacks feel to their own racial group.

My results also show that strength of racial identity among blacks may be significant for some health measures (i.e. self-rated health), but not for others (i.e. depressive symptoms). My analyses suggest that depressive symptoms are not significantly affected by strength of racial identity for middle or working-class blacks. However, it does appear that middle-class blacks benefit from their class position for depressive symptoms. I do not find significant differences between middle and working-class blacks for self-rated health. While many scholars find evidence that socioeconomic status is a fundamental cause of health (Phelan, Link and Tehranifar 2010; Link and Phelan 1995), I find no significant class differences for blacks at least as it relates to self-rated health.

Research has established that, relative to whites, blacks benefit less from increased socioeconomic resources such as education and/or income (Cummings and Jackson 2008; Farmer and Ferraro 2005.) Middle-class blacks do not necessarily benefit in a straightforward fashion from their class status. Rather, whether class matters may depend on the specific health dimension being examined.

Although this paper advances our understanding of how psychosocial resources, such as racial identity, moderate the relationship between perceived racism and health it is not without limitations. Future studies should attempt to focus on other dimensions of racial identity. I use only one dimension (closeness to own racial group). Some previous research found that only positive group evaluation is protective for minority groups (Hughes et. al 2013). My results suggest that closeness to racial group is protective only under specific conditions. It would be useful to compare multiple dimensions of racial identity such as closeness and positive group evaluation to examine how each works (or doesn't) to moderate the negative effects of perceived racism on health outcomes. It is also possible that closeness to own racial group may miss some important specificities such as certain sub-groups (e.g. feeling close to other middle-class blacks but more distant from working-class blacks).

Another limitation of the current study is the small sample size. The self-rated models include 388 black respondents and the depressive symptoms models include 371 black respondents. Additionally, the sample only includes 90 black middle-class respondents (using college education as the middle-class definition). This limitation is partly due to the general lack of nationally representative panel studies that include a large sample of blacks *and* the variables of interest in the study. The ACL oversamples for blacks and has the key variables of interest to this study, but the sample size is not ideal. Other nationally representative datasets that have been employed for studying black health include the National Survey of Black Americans (NSBA) and the National Survey of American Life (NSAL). Both of these include a wealth of information and are assets to scholars interested in black health. However, they were not ideal for the current

investigation. In addition to a larger sample of blacks, the NSBA includes more racial identity measures and adequate health measures. However, compared to the ACL, the NSBA data are older (1979-1992). The NSAL is also a good choice for many investigations related to black Americans, but it is not a longitudinal panel design.

Because of data limitations, I was not able to construct latent growth trajectories. As discussed above, racial identity and perceived racism are only measured at one time point. While the current investigation contributes to our understanding how racial identity may impact health and buffer the relationship between racism and health over time, future studies need to investigate how trajectories of racial identity may impact health trajectories. It is possible that, at the individual level, strength of racial identity varies over time for some blacks. Therefore, it would be useful to understand how strength of racial identity trajectories impact health trajectories. Does a consistently strong racial identity over time yield the same health outcomes as varying level of racial identity over time? In addition, future investigations should investigate how trajectories of perceived racism impact health trajectories.

While psychosocial resources may not be the answer to structural racism (for an explication see Bonilla-Silva 1997), they may be important tools that individuals can use to potentially weaken the negative effects of perceived racism on health. Future investigations can continue to examine how psychosocial factors work in the relationship between perceived racism and health.

3. The Importance of Childhood Middle-Class Status for Black American Health: An Intersectional Approach to the Long Arm of Childhood

3.1 Introduction

Extensive evidence indicates that childhood is a critical period in the life course with significant implications for adult health outcomes (Bhatta 2018; Montez and Hayward 2013; Hargrove and Brown 2015; Liu and Umberson 2015). The “long arm of childhood” suggests that childhood experiences and exposures are essential for adult health (Hayward and Gorman 2004). That is, childhood conditions have far reaching health consequences into the future.

Much of the current long arm of childhood research focuses on childhood disadvantage or trauma. Most scholars find that, on average, experiencing deprivation or disadvantage in childhood is associated with negative health outcomes relative to those who did not experience these conditions (Pakpahan et. al 2017; Tampuolon 2015; Haas 2008). However, little research analytically focuses on the role of childhood socioeconomic advantage among disadvantaged racial groups and whether that is significantly associated with adult health outcomes. Mounting evidence documents that there are significant racial-ethnic health disparities between whites and blacks in the U.S. (Kochanek et. al 2016; Brown, Rand and Adkins 2012; Kelly-Moore and Ferraro 2004). Further, racism has a negative effect on the health of U.S. blacks (Lukachko et. al 2014; Williams and Mohammed 2009). However, few studies investigate whether relatively higher socioeconomic status in childhood is a protective factor for U.S. blacks. Because of the racialized social system (Bonilla-Silva 2018; 1997), blacks are more likely to face

racial discrimination in educational, employment and criminal justice settings (Zaw, Hamilton and Darity Jr. 2016; Roscigno et. al 2012; Lewis and Diamond 2015). While it is an obvious potential explanation, intergroup socioeconomic differences cannot explain racial inequality. Many studies that account for intergroup class differences still find significant disparities between whites and blacks in the U.S. (Zaw, Hamilton, and Darity Jr. 2016; Miles 2008). In fact, some research even suggests that higher socioeconomic status is associated with increased perceived racism among U.S. blacks (Jackson and Williams 2006; Tavares 2018). Yet, it is plausible that middle-class childhood position has a protective effect that lingers into adulthood for disadvantaged racial groups. I argue that blacks with middle-class parents, on average, have better adult health relative to blacks from working-class backgrounds. Further, using an intersectional approach, I also argue that this effect is strongest for black women who occupy disadvantaged positions in multiple hierarchies (Collins 2000; Crenshaw 1991). Therefore, their social-structural position is not equivalent to that of black men or white women. Rather, they are likely to experience increased disadvantage throughout the life course. Hence, middle-class position in childhood may be especially important as a protective mechanism for black women.

I extend previous research on the long arm of childhood by using an intersectionality approach to analyze racial and gender differences in the association between childhood socioeconomic status and adult health. While previous work identifies some meaningful gender differences (Lee 2017; Liu and Umberson 2015), little work focuses on the particular structural position of black women. Specifically, I investigate whether the association between childhood socioeconomic status and adult health works

differently for black women relative to other racial/gender groups. In this paper, I analyze how childhood socioeconomic status (measured by parental education) is associated with adulthood health outcomes. I use data from the National Survey of American Life (NSAL) and the American Changing Lives Study (ACL) to study the association between childhood socioeconomic status and two health outcomes: self-rated health and psychological distress.

3.2 Background

3.2.1 Long Arm of Childhood

The life course perspective has significant promise for understanding how childhood experiences impact a variety of outcomes throughout different life stages (George 2013). Dating back to Elder's (1974) classic study, "*Children of the Great Depression*", scholars have shown that childhood exposure to deprivation and trauma has significant implications for health (and other) outcomes over the life course (Pavola 2017; Haas and Rohlfen 2010). This is generally referred to as the long arm of childhood (Hayward and Gorman 2004). One strand of this research centers on the specific relationship between childhood socioeconomic status and adult health. Most of the findings suggest that childhood socioeconomic conditions have a significant effect on health into adulthood and contribute to differential mortality effects (Link et. al 2017; Haas 2008).

A growing literature indicates that the long arm of childhood is a robust effect that spans different countries and applies across different health outcomes. While most studies focus on the U.S. context, recent work demonstrates that the association between childhood experiences and adult health outcomes work similarly in countries such as, Korea (Lee 2017), the United Kingdom (Tampubolon 2015), and a host of other

European countries (Pakpahan, Hoffman and Kröger 2017). Similarly, scholarly work in this area mostly analyzes physical health outcomes such as mortality (Hayward and Gorman 2004), functional limitations (Haas 2008), and body mass index (Liu and Umberson 2015). Nevertheless, recent work has shown that the long arm of childhood also extends to mental health outcomes such as depressive symptoms (Latham 2014), and life satisfaction (Deindl 2013). Therefore, childhood experiences have significant implications across different geographic settings and for outcomes across the health spectrum.

While scholars agree that childhood is a critical period for adult health, there is less agreement or clarity on *why* childhood socioeconomic status is important for adult health outcomes. Some researchers suggest that there is a direct effect of childhood conditions on adult health (Liu and Umberson 2015; Lee 2017; Montez and Hayward 2013). That is, even accounting for adult socioeconomic status (and other salient adult characteristics), there is still a residual impact of childhood socioeconomic status. Other researchers advance that childhood conditions primarily impact adult health indirectly (Bhatta et. al 2018; Pavela 2017; Latham 2014). In the latter case, scholars find that childhood socioeconomic status is important because it is associated with adult income, educational achievement, and lifestyle behaviors which in turn influence adult health. Therefore, childhood socioeconomic status does not directly influence adult health, rather it works through adult socioeconomic attainment and lifestyle behavior trajectories.

It is important to note here that some of the studies that identify a direct effect of childhood socioeconomic status on adult health report that these processes work differently for men and women. For instance, Lee (2017) finds that childhood

socioeconomic status was a significant predictor of later life functional limitations even after controlling for adult SES and other characteristics, but only for women. Liu and Umberson (2015) also find that childhood stress is only related to changes in BMI for women. Hamil-Luker and O’Rand (2007) contend that childhood socioeconomic status is only significant for explaining women’s heart attack risk after accounting for adult risk factors. These studies give some indicative evidence that the contribution of childhood socioeconomic status may matter more for groups who occupy disadvantaged structural positions in societal hierarchies such as gender. Nonetheless, most of these studies do not attend to how multiple, overlapping structural positions may have differential consequences for the relationship between childhood socioeconomic status and adult health. Further, little research has examined whether there are differential race effects of early life childhood SES on adult health.

In this paper, I examine how childhood socioeconomic status is associated with adult health for blacks and whites in the United States. My argument here is that in a racialized social system, early life conditions may be especially important for groups at the bottom of the racial stratification system who are more likely to experience events and trauma associated with worse health outcomes (Umberson et. al 2017). Indeed, blacks in the U.S., on average, have worse health outcomes, both at one point and over time, relative to their white counterparts (Brown et. al 2012). It is also the case, that individuals occupy different positions in different hierarchies (Collins 2000). I argue that childhood middle-class status is particularly important for black women’s adult health because of their disadvantaged position in multiple hierarchies. In the next section, I elaborate on racial disparities in health and discuss how current research on health

disparities may suggest that early life socioeconomic status may be an important time for blacks and particularly for black women.

3.2.2 Race, Racism and Health

Blacks in the U.S. continue to be subjected to racism at various levels (structural, interpersonal, cultural). Unfair treatment in employment, educational and health settings negatively influence the life chances of U.S. blacks. In employment, blacks are subject to wage discrimination (Coleman, Darity Jr. and Sharpe 2008), harsher enforcement policies (Mong and Roscigno 2010), and unfair performance reviews (Roscigno et. al 2007).

Relative to whites, blacks also are subjected to unfair treatment as it relates to educational opportunities (Lewis and Diamond 2015) and job market entry (Gaddis 2015). It is well established that racism significantly contributes to racial-ethnic disparities between U.S. blacks and whites.

Health scholars in the U.S. generally identify racial disparities between whites and native-born blacks (Williams and Mohammed 2013; Williams 2012). Blacks, on average, have lower self-rated health and higher incidence of heart disease and more functional limitations (Beck et. al 2014; Bibbins-Domingo et. al 2009; Keppel, Percy and Wagener 2002). One common explanation for racial health disparities has been intergroup socioeconomic differences. Because socioeconomic status is considered a fundamental cause of health (Phelan et. al 2010), some scholars contend that racial differences are disguised social class differences (see Hout 2012). While there are significant between-group socioeconomic differences between whites and blacks, most studies that account for these socioeconomic differences still identify significant racial health disparities (Williams, Priest and Anderson 2016).

While health research suggests strong support for racial health disparities, it also suggests that these inequalities may not be evenly spread across race/gender groups. Specifically, minority women and, especially black women, tend to have worse health outcomes across multiple health dimensions. Recent research demonstrates that black women in particular may be subject to worse health outcomes and trajectories over time. This is consistent with Richardson and Brown's (2016) findings that while overall being a female was associated with lower risk of hypertension, being a black female was significantly associated with increased odds for hypertension. Research by Warner and Brown (2011) also provides suggestive evidence that the experience of black women is significantly different. While their results indicate that both black and Hispanic women have significantly worse functional limitations trajectories, they found that only black women's rates of changes were affected. Examining gender and race health differences, Read and Gorman's (2006) investigation also finds that black women have the worst outcomes across a variety of health outcomes. The above research underscores the impact of multiple oppression systems evident in the health of black women.

Overlapping identities within social domination systems (Hill-Collins 2000) can shape outcomes for groups. Intersectionality offers an important grounding for understanding how interwoven social hierarchies, such as racism and patriarchy, define the experience of actors who occupy overlapping positions within these social systems (Hill Collins 2015; Crenshaw 1991). Intersectionality itself is a contested field of study and scholars use this term with different meanings (see Hill Collins 2015). Here, I use intersectionality as an analytical strategy to understand how the unique social position of black women may shape their health outcomes. Specifically, I contend that their

structural position within patriarchal and racialized systems, places them at unique disadvantage relative to other groups. Hence, it is plausible that, given their position, advantaged childhood, socioeconomic position may be especially important.

While the literature that explicitly applies intersectionality to population health is still relatively small, a growing number of studies have used this approach to understand how intersecting social disadvantages influence health outcomes (Hargrove 2018; Brown et. al 2016; Richardson and Brown 2016; Ailshire and House 2011). The growing consensus among intersectional health scholars is that because of their structural position minority women tend to have the worst health outcomes. The contribution of the current study would be to extend the intersectional approach to analyzing the importance of early childhood socioeconomic status on adult health. Hargrove and Brown (2015) examine racial-ethnic differences in the relationship between childhood socioeconomic status and adult health, but they specifically focus on men and do not explicitly apply intersectionality. To my knowledge, no study to date has applied an intersectional approach to examining differences in the association between childhood socioeconomic status and adult health.

The life course perspective is of value to the current study because it places a unique emphasis on trying to examining social phenomena as they unfold over time (George 2013). While several life course principles are relevant to the current investigation, I highlight two key principles here: long-term temporal patterns and linked lives. Life course research focuses on long-term temporal patterns and suggests that social phenomena unfold over time. Therefore, it is useful to attempt to understand how critical periods influence individuals over time. In much of the life course literature,

childhood is understood as a critical period where exposure to certain disadvantage or traumas potentially has consequences (whether directly or indirectly) for the rest of the life course. However, childhood is also an important because of the linked lives principle (George 2013). This principle suggests individual lives are connected to the previous generation. That is, what happens over the course of one's life is also connected to previous social relationships. Therefore, parental characteristics have important implications for child outcomes at different stages in the life course.

Here, I focus on how childhood socioeconomic status has implications for adult health with a special emphasis on analyzing this relationship among disadvantaged racial/gender groups. Moreover, while the main focus of the long arm of childhood literature has been on childhood disadvantage, I am most interested in whether childhood socioeconomic *advantage* among disadvantaged racial groups matters more relative to dominant racial groups. Because blacks, and specifically black women, are more likely to be exposed to racism (in all its forms) and other risk factors that are linked to worse health outcomes, socioeconomic advantage in a critical period may operate as a protective factor over the life course. Indeed, some scholars look to early life conditions as potentially one of the main solutions to address racial health disparities (Thorton et. al 2016; Williams 2012).

3.2.3 Hypotheses

The extant literature on the long arm of childhood suggests that childhood socioeconomic status works mostly indirectly to influence adult health outcomes (Bhatta et. al 2018; Latham 2014; Hayward and Gorman 2004). Thus, I expect that for non-

disadvantaged racial groups the childhood socioeconomic status-adult health link would be explained mostly by adult socioeconomic status.

Hypothesis 1: For whites, childhood socioeconomic status will be associated with adult health. However, this association will be fully explained by adult socioeconomic status.

My main argument in this paper is that childhood socioeconomic status matters more for disadvantaged racial/gender groups who are most likely to experience racism in addition to other risk factors associated with negative health outcomes. Therefore, higher socioeconomic status in childhood may act as a protective factor throughout the life course even after accounting for adult socioeconomic status.

Hypothesis 2a: There is a direct association between childhood socioeconomic status and adult health for blacks net of adult socioeconomic status.

A number of studies also identify direct associations between childhood socioeconomic status and adult health net of adult socioeconomic and lifestyle factors (Tampuobulon 2015; Haas 2008). Moreover, many studies identify direct associations only for women (Liu and Umberson 2015; Hamil-Luker and O’Rand 2007) suggesting that the association between childhood socioeconomic conditions and adult health may work differently for disadvantaged groups. However, this does not mean that this relationship works similarly for all women. Intersectionality suggests that overlapping identities will produce different results for black women relative to white women and

black men. This is consistent with previous literature on black women's health patterns (Richardson and Brown 2016; Read and Gorman 2006). Therefore, I expect to find that the childhood socioeconomic status-adult health link matters most (relative to white men/women and black men) for black women.

Hypothesis 2b: The direct association between childhood socioeconomic status is strongest for black women.

3.3 Data and Methods

3.3.1 Samples

I use data from two nationally representative datasets: (1) the National Survey of American Life (NSAL), and (2) the American Changing Lives Study (ACL). The NSAL is a nationally representative sample collected by the Program for Research on Black Americans at the University of Michigan (See Jackson et. al 2004). NSAL respondent data were collected from 2001-2003. I delete individuals with missing data on both mother and father's education. My final sample from the NSAL includes 2,484 blacks and 720 whites. The ACL is a nationally representative panel study funded by the National Institute on Aging (House, Lantz and Herd 2005). The ACL currently has five waves of panel data collected in 1986, 1989, 1994, 2001-2002 and 2011. For the purposes of this study, I only use Wave 1 data. I also delete respondents with missing data on both parents' education. The final sample for ACL includes 1,661 whites and 628 blacks. Unless otherwise noted, measures are coded in the same manner in both datasets.

3.3.2 Dependent Variables

I use two measures of health as dependent variables: self-rated health and psychological distress. *Self-rated health* is a single item measure of respondent subjective health assessment. This measure is a remarkable predictor of mortality and other physical impairments (Schnittker and Bacak 2014). This item ranges from a minimum value of 1 (excellent) to a maximum value of 5 (poor). I reverse code self-rated health so that higher values indicate better health (i.e. 1 = poor and 5 = excellent). The self-rated models are from the NSAL.

Psychological Distress is measured using the six-item Kessler non-specific distress scale in the NSAL. The Kessler-6 asks how often in the past 30 days respondents felt: (1) hopeless, (2) nervous, (3) so depressed that nothing could cheer them up, (4) that everything was an effort, (5) worthless, and (6) restless. These are Likert-scale items ranging from 0 (none of the time) to 4 (all of the time). I sum the six items and scores range from 0 to 24. The Cronbach's alpha for the 6-item scale is .80. The NSAL only has valid Kessler-6 responses for black respondents, therefore I include the ACL to be able to compare racial/gender patterns in psychological distress.

For the ACL, I use the 11-item Center for Epidemiologic Studies Depressive (CES-D) symptoms scale as the measure of psychological distress. Respondents were asked how often in the past week they experienced feelings related to four domains: (1) depressed affect, (2) positive affect, (3) somatic symptoms, and (4) interpersonal relations. Valid responses range from 0 (never or hardly ever) to 2 (most of the time). The two positive affect items ("I enjoyed life" and "I was happy") are reverse-coded. I use a

composite CES-D score by summing the 11 items. Composite CES-D scores range from 0 to 22. The Cronbach's alpha for the 11 items is .82.

3.3.3 Independent Variables

Childhood socioeconomic status is measured using parental education. Here, I use parent college degree (16 years or more of education) as a proxy for middle-class childhood status. Respondents with at least one parent with a college degree are coded as 1 (middle-class) and respondents with no parents with college degree as coded as 0 (working-class). As I will discuss further below, it would be preferable to have multiple indicators of social class including income, occupational prestige, and particularly wealth (Marsh et. al 2007). However, both the NSAL and ACL only have education measures for respondents' parents.

Adult socioeconomic status is a measure of whether respondents have a college degree (16 years or more of education). This is consistent with the childhood socioeconomic status measure. I restrict the NSAL sample to individuals are 25 or older in order to only capture individuals who would have been able to obtain a college degree. The ACL study age ranges from 25 to 94 so it was not necessary to modify the sample in that regard. I also include a measure of whether respondents experienced significant *economic instability* in the past year. In the NSAL the economic instability measures whether participants were unable to meet basic expenses, didn't pay full mortgage/rent, were evicted for non-payment, had utilities or phone disconnected, or couldn't afford childcare and/or leisure activities. If respondents had at least one of these experiences in the past year they were coded as 1. Respondents who did not experience any of the above experiences are coded as 0. The ACL economic problems measure is a dummy variable

for respondents who reported serious difficulty paying bills, serious money problems or report not having enough money at some point in the past year.

3.3.4 Control Variables

Age is measured in number of years. *Sex* is a dummy variable with female coded as 1. *Region* is a dummy variable with South coded as 1 and all other regions coded as 0. *Household size* is coded continuously and ranges from 1 to 12 and 1 to 7 or more in the ACL and NSAL respectively. Although the NSAL household size is truncated at the upper end, there are similar percentages of households with over 7 individuals in both datasets. (NSAL: 1.66 percent; NSAL: 1.70 percent). *Employment status* is a categorical variable using employed, unemployed, and not in labor force. In the regression models employed is the reference category. *Marital status* is categorical variable using married/has partner, divorced, and never married. Married/Partner is the reference category in the regression models.

3.3.5 Data Analysis Strategy

I estimate ordered logit regression coefficients for the self-rated health models and negative binomial regression coefficients for the psychological distress models. I use a two-step analytic approach to investigate race/gender difference in the relationship between childhood socioeconomic status and adult health. First, I present models stratified by race for blacks and whites. Second, I show models stratified by race and gender. For each model, I use a stepwise approach. In Model 1, the relationship between childhood socioeconomic status and the main dependent variable (self-rated health or psychological distress) is examined. In Model 2, I add adult socioeconomic status and

adult economic instability to determine whether adult socioeconomic variables mediate the relationship between childhood socioeconomic status and health. I include the control variables in both models. I did test for interactions between childhood status and adult socioeconomic status to determine whether the effect of parental socioeconomic status differed, depending on respondents' socioeconomic achievements⁸. None of the interactions were significant and are not shown in the regression models.

3.4 Results

3.4.1 Descriptive Results

Descriptive results for the NSAL and ACL are shown in Tables 1 and 2 respectively. Mean self-rated health for blacks and whites are similar across the two samples (See Table 4 and Table 5). As mentioned above, the NSAL only has Kessler-6 psychological distress scores for blacks. The mean black Kessler-6 score is relatively low at 3.69. In the ACL, black respondents have an average of 5.63 depressive symptoms compared to 4.26 for their white counterparts.

⁸ Some research indicates that there is an interaction between parental and adult education (Ross and Mirowsky 2011). However, I did not find an interaction for any of the groups I analyze.

Table 4: Sample Characteristics: National Survey of American Life (2001-2003)

| | Full Sample | Black | White | Range |
|---------------------------|--------------------|--------------|------------------|--------------|
| N (Age 25 and up) | 3,204 | 2,484 | 720 | |
| Self-Rated Health | 3.35 | 3.34 | 3.36 | 1- 5 |
| Psychological Distress* | 3.69 | 3.69 | --- ⁺ | 0-24 |
| Childhood SES (Parent BA) | 14% | 12% | 23% | |
| Adult SES (BA) | 17% | 15% | 27% | |
| Economic Instability | 37% | 39% | 29% | |
| South | 66% | 65% | 69% | |
| Sex (Female = 1) | 63% | 65% | 57% | |
| Age | 46.82 | 46.60 | 50.39 | 25-94 |
| Household Size | 2.40 | 2.46 | 2.16 | 1-7 or more |
| Employment Status | | | | |
| Employed (Ref.) | 66% | 66% | 66% | |
| Unemployed | 8% | 9% | 5% | |
| Not in Labor Force | 26% | 25% | 29% | |
| Marital Status | | | | |
| Married/Partner (Ref.) | 40% | 37% | 51% | |
| Divorced | 36% | 37% | 35% | |
| Never Married | 24% | 26% | 14% | |

*Measured with Kessler 6-item scale.

⁺National Survey of American Life only has valid psychological distress responses for Blacks.

Note: Percentages are noted for dummy variables.

Overall, 14 percent of the NSAL sample has at least one parent with a college degree, but those figures differ by race; 23 percent of white respondents compared to 12 percent for black respondents have at least one parent with a college degree. There are

similar racial differences in childhood socioeconomic status in the ACL. 12 and 5 percent of white and black respondents respectively report having at least one parent with a college degree.

Table 5: Sample Characteristics. American Changing Loves Study (Wave 1)

| | Full Sample | Black | White | Range |
|---------------------------|--------------------|--------------|--------------|--------------|
| N (Age 25 and up) | 2,431 | 626 | 1,655 | |
| Self-Rated Health | 3.48 | 3.33 | 3.56 | 1- 5 |
| Psychological Distress* | 4.75 | 5.63 | 4.26 | 0-21 |
| Childhood SES (Parent BA) | 10% | 5% | 12% | |
| Adult SES (BA) | 14% | 8% | 17% | |
| Economic Instability | 27% | 39% | 20% | |
| South | 40% | 55% | 32% | |
| Sex (Female = 1) | 62% | 66% | 61% | |
| Age | 53.66 | 52.60 | 54.61 | 25-98 |
| Household Size | 2.62 | 2.83 | 2.47 | 1-12 |
| Employment Status | | | | |
| Employed (Ref.) | 52% | 51% | 62% | |
| Unemployed | 4% | 6% | 3% | |
| Not in Labor Force | 44% | 23% | 45% | |
| Marital Status | | | | |
| Married/Partner (Ref.) | 55% | 39% | 62% | |
| Divorced | 34% | 44% | 30% | |
| Never Married | 11% | 17% | 8% | |

*Measured with CES-D 11 depressive symptoms scale
Note: Percentages are noted for dummy variables

There are similar descriptive differences in adult socioeconomic status. In the NSAL 17 percent of the overall sample reports having a college degree. However, among blacks that figure is 15 percent compared to 27 percent for white respondents. In the ACL, 17 and 8 percent of white and black respondents respectively have a college degree. The adult economic stability measure shows some descriptive race differences as well. Relative to the NSAL, the gap between black and white respondents is larger in the ACL where black respondents (39 percent) report experiencing adult economic instability more than their white peers (20 percent). This may be due to differences in the economic instability measure across datasets, but, as I will discuss below in the regression results, this measure appears to operate similarly across datasets in the multivariate models.

In terms of the demographic predictors, females comprise similar proportions of the NSAL (63 percent) and the ACL (62 percent). In both datasets, whites are on average older than black participants. While the means for being employed are similar between races, the reported unemployed figures differ by race; 9 and 5 percent of blacks and whites respectively report being unemployed in NSAL. In the ACL, 6 and 3 percent of white and black respondents correspondingly are unemployed. Marital status categories also vary by race across datasets. For the NSAL 37 percent of black respondents report being married or having a partner compared to 51 percent for whites. The overall ACL sample has higher proportion of married respondents relative to the NSAL, but the black percentage is similar to the ACL.

3.4.2 Self-Rated Health Multivariate Models

I estimate models for self-rated health using ordered logit models. First, I discuss the regression results for models stratified by race that are shown in Table 6. There are

two models for each racialized group. The first model includes childhood socioeconomic status and all the demographic predictors. The second model adds the adult socioeconomic status and adult economic instability variables. All of the self-rated health models are based on the NSAL.

Table 6: Self-Rated Health. Black and White Respondents. NSAL (20013-2003)

| VARIABLES | Whites | | Blacks | |
|-------------------------------|----------------------|-----------------------|-------------------------|-------------------------|
| | Model 1 | Model 2 | Model 1 | Model 2 |
| Childhood SES | 0.227 (0.166) | 0.0336 (0.178) | 0.341** (0.119) | 0.239* (0.121) |
| Adult SES | | 0.420* (0.168) | | 0.314** (0.101) |
| Experienced Economic Problems | | -0.843*** (0.164) | | -0.498*** (0.0790) |
| Demographic Predictors | | | | |
| South | -0.125 (0.156) | -0.111 (0.156) | 0.144 (0.0768) | 0.151 (0.0771) |
| Sex (Female) | 0.175 (0.143) | 0.201 (0.144) | -0.134 (0.0792) | -0.127 (0.0797) |
| Age | 0.00275 (0.00586) | -0.00500 (0.00615) | -0.0128*** (0.00356) | -0.0168*** (0.00361) |
| Household Size | -0.0353 (0.0676) | 0.00991 (0.0685) | -0.000307 (0.0283) | 0.0328 (0.0288) |
| Ref. Employed | | | | |
| Unemployed | -1.096** (0.346) | -0.774* (0.362) | -0.462*** (0.134) | -0.347* (0.135) |
| Not in Labor Force | -1.049*** (0.188) | -0.967*** (0.189) | -1.213*** (0.109) | -1.159*** (0.110) |
| Ref. Married/Partner | | | | |
| Divorced | -0.455* (0.182) | -0.292 (0.184) | -0.141 (0.0939) | -0.0258 (0.0954) |
| Never Married | -0.212 (0.233) | -0.217 (0.234) | -0.0762 (0.102) | 0.00911 (0.103) |
| Observations | 720 | 720 | 2,484 | 2,484 |

Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05

For whites, childhood socioeconomic status is not significantly associated with adult self-rated health in either Models 1 or 2. In Model 2, adult socioeconomic status and adult economic instability are both significantly associated with adult self-rated health. White middle-class adults have higher self-rated health relative to their working-class peers. White respondents who have experienced economic instability in the past year have lower self-rated health relative to those who have not. Employed respondents report higher self-rated health relative to those who are unemployed and those not in the labor force.

The multivariate models for blacks suggest that childhood socioeconomic status is significantly associated with adult self-rated health. In Model 1, childhood middle-class position is significantly associated with higher adult self-rated health. This positive association remains even when adult socioeconomic status and adult economic instability are added in Model 2. These results suggest that while adult socioeconomic status and economic instability significantly impact adult health, these variables do not completely mediate the association between childhood socioeconomic status and adult health for blacks. Similar to whites, employed blacks have higher adult self-rated health relative to unemployed and those not in the work force.

Next, I discuss ordered logit models that are stratified by race/gender (See Table 7). First, I focus on the results for white men, white women, and black men since the patterns are fairly similar for the main variables of interest. For these three groups, childhood socioeconomic status is not significantly associated with adult health in either

Models 1 or 2. Adult socioeconomic status is only significant for white men. Economic instability is negatively associated with adult self-rated health for these three groups.

Childhood socioeconomic status seems to operate differently for black women. In Model 1, childhood middle-class status is significantly associated with adult self-rated health. The association is positive suggesting that middle-class childhood position is associated with higher self-rated health for black women. After including adult socioeconomic status and adult economic stability, childhood socioeconomic status remains significant for black women suggesting that the association between childhood middle-class position and adult self-rated health is not completely explained by adult socioeconomic status or economic instability (in the past year). South region is also positively associated with self-rated health for black women. Similar to all other race/gender groups, those not in the labor force have worse self-rated health relative to those that are unemployed.

Table 7: Self-Rated Health. Black and White Respondents. National Survey of American Life. Wave 1

| VARIABLES | White Men | | White Women | | Black Men | | Black Women | |
|-------------------------------|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|------------------------|-----------------------|-------------------------|
| | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Childhood SES | 0.340 (0.250) | 0.162 (0.258) | 0.146 (0.222) | -0.106 (0.250) | 0.0438 (0.196) | -0.0213 (0.198) | 0.488** (0.151) | 0.354* (0.156) |
| Adult SES | | 0.481* (0.241) | | 0.459 (0.240) | | 0.252 (0.171) | | 0.339** (0.126) |
| Economic Instability | | -0.737** (0.259) | | -0.901*** (0.216) | | -0.606*** (0.139) | | -0.456*** (0.0964) |
| Demographic Predictors | | | | | | | | |
| South | -0.0108 (0.253) | -0.0456 (0.254) | -0.159 (0.200) | -0.105 (0.202) | 0.0106 (0.130) | 0.0162 (0.130) | 0.211* (0.0957) | 0.221* (0.0962) |
| Age | -0.00299 (0.00935) | -0.00922 (0.00963) | 0.00740 (0.00772) | -0.00185 (0.00823) | -0.0158* (0.00620) | -0.0197** (0.00631) | -0.0111* (0.00440) | -0.0151*** (0.00447) |
| Household Size | -0.0404 (0.107) | 0.0119 (0.108) | -0.0413 (0.0889) | -0.00267 (0.0902) | -0.0646 (0.0532) | -0.0563 (0.0536) | 0.0228 (0.0339) | 0.0631 (0.0347) |
| Ref. Employed | | | | | | | | |
| Unemployed | -0.913 (0.558) | -0.479 (0.585) | -1.312** (0.450) | -1.117* (0.468) | -0.751** (0.264) | -0.548* (0.267) | -0.372* (0.155) | -0.282 (0.157) |
| Not in Labor Force | -1.280*** (0.318) | -1.163*** (0.318) | -0.963*** (0.238) | -0.894*** (0.242) | -1.358*** (0.205) | -1.303*** (0.206) | -1.164*** (0.130) | -1.114*** (0.131) |
| Ref. Married/Partner | | | | | | | | |
| Divorced | -0.424 (0.317) | -0.335 (0.316) | -0.530* (0.226) | -0.321 (0.233) | -0.311 (0.164) | -0.231 (0.166) | -0.0775 (0.116) | 0.0528 (0.118) |
| Never Married | -0.0227 (0.360) | -0.0103 (0.357) | -0.433 (0.314) | -0.482 (0.317) | -0.165 (0.182) | -0.131 (0.183) | (0.125) | (0.126) |
| Observations | 307 | 307 | 413 | 413 | 874 | 874 | 1,610 | 1,610 |

3.4.3 Psychological Distress Multivariate Models

I estimate negative binomial models for psychological distress using the same model strategy described above for self-rated health. I will discuss the multivariate model results for all blacks (NSAL) first (See Table 8).

Table 8: Psychological Distress. Black Respondents. NSAL (2001-2003)

| VARIABLES | All Blacks | | Black Men | | Black Women | |
|-------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|
| | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Childhood SES | -0.203* (0.0857) | -0.138 (0.0847) | -0.0610 (0.146) | 0.00297 (0.144) | -0.295** (0.106) | -0.231* (0.106) |
| Adult SES | | -0.290*** (0.0707) | | -0.290* (0.126) | | -0.285*** (0.0864) |
| Experienced Economic Problems | | 0.569*** (0.0516) | | 0.506*** (0.0951) | | 0.612*** (0.0615) |
| Demographic Predictors | | | | | | |
| South | -0.0327 (0.0534) | -0.0367 (0.0519) | 0.00824 (0.0934) | 0.000515 (0.0924) | -0.0591 (0.0651) | -0.0630 (0.0627) |
| Sex (Female) | 0.0670 (0.0552) | 0.0229 (0.0538) | ----- | ----- | ----- (0.0792) | ----- (0.0797) |
| Age | -0.02*** (0.00248) | -0.01*** (0.00240) | -0.012** (0.00453) | -0.0089* (0.00443) | -0.01*** (0.00297) | -0.013*** (0.00287) |
| Household Size | 0.0417* (0.0195) | 0.0114 (0.0191) | 0.0552 (0.0364) | 0.0522 (0.0355) | 0.0360 (0.0233) | -0.0101 (0.0230) |
| <i>Ref. Employed</i> | | | | | | |
| Unemployed | 0.563*** (0.0896) | 0.456*** (0.0874) | 0.606*** (0.182) | 0.441* (0.179) | 0.550*** (0.102) | 0.470*** (0.0993) |
| Not in Labor Force | 0.517*** (0.0707) | 0.436*** (0.0690) | 0.517*** (0.136) | 0.441*** (0.133) | 0.517*** (0.0827) | 0.439*** (0.0806) |
| <i>Ref. Married/Partner</i> | | | | | | |
| Divorced | 0.0797 (0.0647) | -0.00527 (0.0633) | 0.173 (0.115) | 0.117 (0.112) | 0.0291 (0.0789) | -0.0725 (0.0772) |
| Never Married | 0.0853 (0.0699) | 0.0146 (0.0680) | 0.149 (0.129) | 0.137 (0.126) | 0.0405 (0.0838) | -0.0561 (0.0812) |
| Observations | 2,484 | 2,484 | 874 | 874 | 1,610 | 1,610 |

Standard errors in parentheses. *** p<0.001, ** p<0.01, * p<0.05

For black respondents overall, childhood socioeconomic status is significantly associated with psychological distress (See Model 1). Middle-class childhood position is associated with lower psychological distress scores. However, this relationship becomes non-significant when adult socioeconomic status and economic instability are added in Model 2. This suggests that association between childhood socioeconomic status and adult psychological distress is mediated by adult socioeconomic factors.

The models stratified by race/gender in Table 8 are consistent with the findings for self-rated health. For black men, childhood socioeconomic status is not significantly associated with psychological distress. However, adult socioeconomic status and economic instability are significantly associated with psychological distress. Further, the associations are in the expected direction: negative for adult socioeconomic status and positive for adult economic instability.

Psychological distress models for black women indicate that childhood socioeconomic status operates similarly across health dimensions. Middle-class childhood socioeconomic status is a protective factor; black women who had a middle-class childhood, on average, have fewer distress symptoms relative to their working-class counterparts. This relationship remains significant with the inclusion of adult socioeconomic status and economic instability in Model 2 (See Table 8). For both black men and black women, age and employment status are both significantly associated with psychological distress. Age is negatively associated with psychological distress suggesting that older black respondents average less psychological distress. Employed

black respondents also have lower psychological distress scores relative to the other two employment status categories.

Since there are no Kessler-6 psychological distress scores for white respondents in the NSAL, I use the ACL for the white psychological distress models (See Table 9). In the ACL, I use depressive symptoms as the psychological distress measure. I also present black regression estimates for comparison purposes. I do not estimate models stratified by race/gender for the ACL as there is not a sufficient number of both adult and childhood middle-class blacks for such analyses. Therefore, the results for blacks should be interpreted with caution. Although the ACL results are consistent with the general pattern, the NSAL results for blacks provide more confidence due to the larger number of blacks.

For white respondents, the psychological distress patterns are similar to self-rated health. Again, I find that childhood socioeconomic status is not significantly associated with adult health in either model. Adult socioeconomic status though is significantly associated with adult psychological distress; middle-class white respondents have fewer psychological distress symptoms relative to their working-class counterparts. Adult economic instability is also associated with higher psychological distress scores among whites. White women also report more psychological distress relative to white men.

Table 9: Psychological Distress. White and Black Respondents. ACL Wave 1

| VARIABLES | Whites | | Blacks | |
|-------------------------------|--------------------------|--------------------------|-------------------------|-------------------------|
| | Model 1 | Model 2 | Model 1 | Model 2 |
| Childhood SES | -0.0695 (0.0730) | 0.00873 (0.0749) | -0.335* (0.151) | -0.326* (0.150) |
| Adult SES | | -0.203** (0.0618) | | -0.0144 (0.106) |
| Experienced Economic Problems | | 0.393*** (0.0558) | | 0.402*** (0.0653) |
| Demographic Predictors | | | | |
| South | -0.0238 (0.0500) | -0.0193 (0.0492) | 0.0559 (0.0656) | 0.0569 (0.0636) |
| Sex (Female) | 0.108* (0.0494) | 0.0995* (0.0490) | 0.113 (0.0744) | 0.137 (0.0726) |
| Age | -0.00944*** (0.00191) | -0.00725*** (0.00191) | -0.0112*** (0.00266) | -0.0109*** (0.00258) |
| Household Size | -0.0120 (0.0220) | -0.0237 (0.0217) | 0.00682 (0.0228) | -0.0160 (0.0224) |
| Ref. Employed | | | | |
| Unemployed | 0.497*** (0.122) | 0.390** (0.121) | 0.286* (0.133) | 0.255* (0.129) |
| Not in Labor Force | 0.238*** (0.0598) | 0.193** (0.0593) | 0.159 (0.0815) | 0.101 (0.0801) |
| Ref. Married/Partner | | | | |
| Divorced | 0.326*** (0.0574) | 0.253*** (0.0572) | 0.266*** (0.0783) | 0.180* (0.0770) |
| Never Married | 0.209* (0.0896) | 0.182* (0.0880) | 0.289** (0.103) | 0.186 (0.101) |
| Observations | 1,661 | 1,661 | 628 | 628 |

Standard errors in parentheses *** p<0.001, ** p<0.01, * p<0.05

Childhood socioeconomic status is significant for black respondents in the ACL. In both Models 1 and 2, middle-class childhood position is associated with less psychological distress. In the ACL, adult socioeconomic status is not significant, but

experiencing adult socioeconomic instability is associated with more psychological distress among blacks. For both black and white respondents, employed respondents have less psychological distress relative to the unemployed. For white respondents, employed respondents also fare better relative to those not in the labor force. Married individuals, on average, have less psychological distress relative to divorced for both racialized groups. White married respondents are also significantly different from those who are never married.

My results suggest no support for hypothesis 1. I expected to find that childhood socioeconomic status would be associated with adult health for whites, but that the relationship would be fully mediated by adult socioeconomic status. I find that childhood socioeconomic status is not associated with either adult self-rated health or psychological distress. Adult socioeconomic status is mostly associated with the two health dimensions I analyze. The only exception is that for white women, adult socioeconomic status is not associated with self-rated health. Nevertheless, adult economic instability is consistently associated with worse self-rated health among whites.

There is partial support for hypothesis 2a. Net of adult socioeconomic status and adult economic instability, black childhood socioeconomic status is significantly associated with both health outcomes in every model except for NSAL psychological distress (See Table 5). In most models for all blacks, it does not appear that adult socioeconomic status fully explains the association between childhood socioeconomic status and adult health.

In hypothesis 2b, I posited that the association between childhood socioeconomic status and adult health would be the strongest for black women because of their

overlapping identities and simultaneous disadvantage in multiple social hierarchies. The results suggest support for this hypothesis. In all models, childhood socioeconomic status remains significant even after the inclusion of adult socioeconomic status and adult economic instability. In the models stratified by race and gender, black women are the only group for whom childhood socioeconomic status is associated with adult health net of adult socioeconomic measures.

3.5 Discussion

My objective in the current study was to examine whether the association of childhood socioeconomic status and adult health outcomes vary significantly by race and race/gender. The findings support what other intersectional scholars find: that the pattern of health among minority women suggests that their intersecting identities produce significantly different results than those for black men and white men and women (Richardson and Brown 2016). My analyses suggest that the intersectional approach is of value for those interested in the long arm of childhood. Previous studies report that, net of adult socioeconomic status, childhood conditions may be particularly salient for females on various health outcomes (Liu and Umberson 2015; Hamil-Luker and O’Rand 2007). While some studies do discuss that these processes may work differently for groups who occupy different social locations (See Liu and Umberson 2015), most explicitly discuss gender differences. My findings emphasize that there may be significant intragroup variability for women depending on their position in other stratification systems. That is, occupying simultaneous identities as *black women* and not simply *black* and *women* is an important consideration for multiple social phenomena including long-term health. The findings for black women are significantly different from those for black men and white

women providing further evidence that the impact of overlapping identities is not simply additive (Collins 2000; Crenshaw 1991). Therefore, my research does not align with previous research that suggests some overall gender differences. This may be due to different health outcomes and different datasets, but future researchers should pay close attention to intersectional concerns as they explore the relationship between childhood conditions and adult health. Hargrove and Brown (2015) took a first step in this direction, but their study focuses specifically on men.

This study makes a contribution by applying intersectionality and studying how childhood advantage among disadvantaged groups is important for adult health. Most of the literature on the long arm of childhood focuses analytically on childhood trauma or disadvantage. While, it is important to understand how childhood disadvantage is associated with health over the life course, it is also worth exploring how relative socioeconomic childhood advantage influences adult health. This is a particularly important question for groups who are more likely to face added stress and disadvantage (Williams and Mohammed 2009). Hence, for disadvantaged groups, childhood middle-class status may be protective above and beyond its association with adult socioeconomic status. Here, I demonstrate that childhood socioeconomic position is especially important for marginalized groups, in this case black women. Therefore, this is suggestive evidence that early childhood advantage matters especially for those that are likely to face relatively more disadvantage and discrimination. Similar to other studies (see Read and Gorman 2006), my findings also suggest that this pattern holds across different dimensions and different samples. The regression estimates and patterns are similar for self-rated health and psychological distress. The latter variable was measured with two

different scales: Kessler-6 and CES-D 11 and the results show consistency across measures.

My results do not provide significant support for the argument that the association between childhood socioeconomic status and adult health is almost fully explained by adult socioeconomic and health lifestyle factors (Bhatta et. 2018; Pavea 2017; Latham 2014). I only find support for that line of research in the psychological distress models and only for all blacks (See Table 5). In this model, the association of early childhood is mediated by adult socioeconomic status factors including recent economic instability. However, my investigation also indicates that there is a residual association between childhood socioeconomic status and adult health for blacks and especially for black women even when accounting for adult socioeconomic factors.

My analyses also support recent research that suggests that the relationship between childhood socioeconomic status and health is not limited to physical health (Lee 2017; Wood et. al 2017; Tampubolon 2015). I find that childhood socioeconomic status is associated with self-rated health. The latter is predictive of a host of physical health indicators and mortality (Schnittker and Bacak 2014). The findings for psychological distress here, for blacks and black women in particular, suggest that this relationship is robust across health dimensions.

The current study provides evidence that childhood socioeconomic status may be important for disadvantaged groups -- in this case blacks and, in particular, black women. However, with the current data I am not able to determine the mechanisms through which childhood socioeconomic status is associated with adult health. One possible explanation for psychological distress is that childhood socioeconomic status is associated with

childhood mental health and some researchers have shown childhood well-being to be predictive of adult mental well-being (Vanhoutte and Nazroo 2016; Schaffer, Ferraro and Mustillo 2011). Others contend that childhood conditions impact personality which, in turn, is connected to adult health outcomes (Gale et. al 2013). For physical health, some have posited a biological programming model (Rogers 2003; Ravelli et. al 1976). Nonetheless, none of the above would explain why childhood socioeconomic status is not associated with adult health for whites.

A limitation of the current study is the socioeconomic status measure I use education (college degree) only as the measure of social class because it is the only dimension of parental socioeconomic status that is available in these datasets. To maintain consistency across generations, I also use college degree as the adult socioeconomic status measure. Other socioeconomic measures such as income and especially wealth would have provided a more complete picture of the socioeconomic conditions in both childhood and adulthood. For an additional measure of adult economic resources, I added the economic instability measure to attempt to capture a socioeconomic dimension that is not captured by education. However, to further support the current study, future studies should investigate whether other socioeconomic status definitions yield similar findings.

This study makes use of retrospective respondent data on parental education. Prospective data, especially longitudinal datasets that include both parents and children, would be useful. Few datasets have this type of design, but some studies indicate that recall of childhood socioeconomic status is remarkably valid (Krieger et. al 1998).

Therefore, it is likely that this retrospective measure is a reliable indicator of parental social class as measured by years of education.

It would be beneficial for future prospective studies to focus on early childhood conditions and why their impact may differ by race and by race/gender. My findings suggest that childhood socioeconomic status may a protective factor for disadvantaged groups that, throughout life, are likely to face racial inequality that has been shown to affect their health. However, it is essential to understand why and how early conditions are protective for blacks and especially black women.

Future researchers also need to focus on more robust measures of socioeconomic resources. Increasingly researchers and chiefly those concerned with studying the black middle-class are moving toward incorporating multiple dimensions of class (Marsh et. 2008). However, there is no single black middle-class definition (see Thomas 2015). Some scholars use income (Lacy 2007; Patillo-McCoy 2000), others rely on education (Higginbotham 2009). Others have studied occupations as ways to understand blacks' class position (Harvey-Wingfield 2013). Indeed, wealth might be the best measure of economic stability that is available for blacks considering it is the most poignant area of inequality between whites and blacks in the United States (Brown 2016; Hamilton et. al 2015; Oliver and Shapiro 2006).

Even with the limitations discussed here, my findings underscore that the association between childhood socioeconomic status and adult health may vary by racialized group. Further, the results indicate that childhood socioeconomic status appears to be especially important for the health of black women. From a policy perspective, this brings attention to policies that focus on economic stability and education. These policies

have the potential to have long-term consequences especially for the groups most likely to experience disadvantage throughout the life course. My findings emphasize that adult health is not simply a function of adult socioeconomic attainment and therefore resources should be committed to ameliorating childhood socioeconomic conditions for marginalized race groups.

4. Conclusion

Extensive research has shown that blacks, on average, have significantly worse health relative to whites (see Williams, Priest and Anderson 2016). Less research focuses on identifying protective mechanisms over time. I take some important steps toward filling this research gap. I use a life course approach to examine whether racial identity and childhood middle-class status are protective mechanisms for black health with a particular analytical eye on the black middle-class. My work expands on the racism-health and long arm of childhood literatures.

4.1. Racial Identity Chapter Contributions

In chapter 2, I argue that racial identity is a protective mechanism over time in the relationship between racism and health. Using the stress process model, I contend that a strong racial identity would allow targets to externalize racism rather than internalize them as individual failings. A stronger racial identity is also connected to higher levels of social support and self-esteem, which in turn are associated with better health outcomes (Hughes et. al 2014). My results suggest that whether racial identity is a protective mechanism for changes in self-rated health depends on the frequency of racism respondents experience. Specifically, blacks who report a strong racial identity and low levels of racism tend to have less decline in self-rated health over time.

My chapter 2 findings are consistent with Noh et. al (1999) findings that a strong racial identity may exacerbate the impact of racism on health. However, my findings differ in two regards: (1) their study focuses only on mental health and (2) does not examine levels of racism. First, in my study I did not find that racial identity had a main

or interaction effect for depressive symptoms. Second, Noh et. al (1999) focus on how racial identity leads to different coping strategies which in turn lead to worse mental health. I find that racial identity impacts changes in self-rated health when coupled with different racism levels. Therefore, my research partially supports previous findings that suggest racial identity can be a protective factor against the negative impact of racism (Hughes et. al 2013; Mossakowski 2003). My contribution here is the idea that racial identity may be a protective factor over time, but it may not be enough to combat the negative effects of persistent racism. Therefore, racism has negative implications for changes in self-rated health and it appears that racism coupled with a strong racial identity may be less than ideal. The main takeaway is that racial identity is not inherently negative and solutions should not be designed to de-emphasize racial identity.

Another contribution of the racial identity study is that I find, among blacks, middle-class status is not consistently associated with better health outcomes. Fundamental cause theory suggests that socioeconomic status is fundamental cause of health and health disparities (Phelan, Link and Tehranifar 2010; Link and Phelan 1995). One of the main tenets of fundamental cause theory is that it applies across health dimensions. In contrast, I find that middle-class status (relative to working-class status) is only significantly associated with changes in depressive symptoms. This relationship is in the direction that fundamental cause theory would predict. Self-rated health is a reliable predictor of mortality and other health outcomes (Schnittker and Bacak 2014). Hence, the absence of a significant relationship aligns with previous research on the unequal returns of socioeconomic status to health. Further, my self-rated health findings suggest support

for the idea that socioeconomic status may not be a fundamental cause of black health (see Turner, Brown and Hale 2017).

4.2 Long Arm of Childhood Chapter Contributions

In chapter 3, I analyze whether the association between childhood socioeconomic status and adult health differs for whites and blacks in the United States. My argument is that relative socioeconomic advantage in childhood is especially important for disadvantaged race and race/gender groups because they are more likely to face racism throughout the life course. Therefore, childhood middle-class status may act as protective factor for adult health net of adult socioeconomic status. Using an intersectional approach, I also argue that this association is strongest for black women who due to their simultaneous disadvantage in the racialized and patriarchal social systems, benefit the most from relative childhood socioeconomic advantage. My findings suggest several key insights for the long arm of childhood literature. First, my findings suggest support for my contention that childhood socioeconomic status is directly associated with adult health for blacks. Almost all of the models stratified by race indicate support for a residual association between childhood socioeconomic status and health (net of adult socioeconomic factors) for blacks, but not for whites.

Second, my results suggest that population health scholars would benefit from an intersectional approach. Similar to other scholars (Richardson and Brown 2016; Read and Gorman 2006), I find that health patterns are significantly different for black women. In the models stratified by race/gender, only black women retain a significant association between childhood socioeconomic status and both health outcomes. Previous studies indicate that childhood socioeconomic conditions may be particularly important for

women (Liu and Umberson 2015; Hamil-Luker and O’Rand 2007). My contribution is to demonstrate that this association may vary depending on other simultaneous social locations. My study also makes a contribution by focusing on childhood advantage among disadvantaged groups. Most long arm of childhood studies analytically focus on experiences of trauma and deprivation. I find that relative childhood advantage may be especially important for groups who are disadvantaged throughout the life course. Consequently, childhood socioeconomic interventions may be of significant value for blacks and black women in particular. Third, contrary to previous findings, I do not find that childhood socioeconomic status is associated with either health outcome for whites. I expected to find that childhood socioeconomic status would be indirectly associated with adult health through adult socioeconomic status for whites.

4.3 Dissertation Limitations

A limitation of the current project is the socioeconomic measure that I use in both chapters. I only use education as the measure of middle-class in both chapters. This is not ideal, but I chose this strategy for different reasons in each study. In the ACL, I use education because using multiple indicators of socioeconomic status would have significantly reduced the number of middle-class blacks and jeopardized the feasibility of the analyses. Education is the only parent measure of socioeconomic status that is available in the NSAL. Therefore, to consistently measure both childhood and adult socioeconomic status, I use education as the measure of social class. One of the concerns here is that education is only one social class dimension and may miss key information about economic stability. I attempt to address this by including a measure of economic instability in chapter 3, but in future work I plan to incorporate multiple dimensions of

social class and analyze whether other dimensions produce similar results. It would be beneficial to measure wealth as it remains the most glaring area of economic inequality between whites and blacks in the United States (see Brown 2016; Hamilton et. al 2015).

The racial identity measure also relies on a single dimension: closeness to racial group. While previous studies also use single dimension measures (i.e. positive group evaluation, closeness, etc.), it would be beneficial to use multiple dimensions of racial identity and explore which dimensions are most protective of health over time.

My current investigations center on black middle-class health and explore which factors may be protective over time. However, my current projects have led to other research questions regarding how and why certain mechanisms may be protective for long-term black health. These questions I believe are, at least in part, better answered through in-depth interviews with black middle-class and working-class members. I am interested in understanding the experiences of middle-class blacks living in areas that have higher proportions of affluent blacks relative to middle-class blacks in other areas to examine whether and how their experiences vary. I also plan to further examine how and why childhood middle-class status contributes to better health among blacks and especially black women. This qualitative project will use a comparative approach, contrasting the experiences of middle-class blacks with their working-class peers. One of the main goals of this project will be to examine whether blacks from different socioeconomic status groups experience or understand racism differently. The current literature suggests that middle-class blacks are much more likely to report experiencing unfair treatment due to their race, but we know little about what would explain class differences in perceived racism. My future quantitative projects will explore how

trajectories of psychosocial factors such as racial identity and social support are related to health trajectories. Much of the current research assumes that some of these factors are static over time, but I plan to investigate how changes in psychosocial resources affect black health trajectories.

Even with the limitations I discuss in the chapters, the current project expands our understanding of how these two potential protective mechanisms work to protect black health over time. It will be essential to further understand how and why psychosocial and socioeconomic resources are protective for the black middle-class.

Appendix A: Center for Epidemiological Studies Depression (CES-D) 11-item Scale

The CES-D 11 item scale has three possible valid responses:

Never or Hardly Ever

Some of the time

Most of the time

The 11 questions ask the respondent “how often during the past week”:

Felt depressed

Felt everything was an effort

Sleep was restless

Was happy (**reverse-coded**)

Felt lonely

Felt people were unfriendly

Enjoyed life (**reverse-coded**)

Did not feel like eating

Felt sad

Felt that people disliked me

Could not get going

References

- Ailshire, Jennifer A., and James S. House. 2011. "The Unequal Burden of Weight Gain: An Intersectional Approach to Understanding Social Disparities in BMI Trajectories from 1986 to 2001/2002." *Social Forces* 90(2):397-423.
- Alexander, Michelle. 2011. *The New Jim Crow: Mass Incarceration in the Age of Colorblindness*. New York, NY: The New Press.
- Aneshensel, Carol, Jo C. Phelan, and Alex Bierman (Eds.). 2013. *Handbook of the Sociology of Mental Health*. New York: Springer.
- Barnes, Lisa L., Carlos F. Mendes de Leon, Tené T. Lewis, Julia L. Bienias, Robert S. Wilson, and Denis A. Evans. 2008. "Perceived Discrimination and Mortality in A Population-Based Study of Older Adults." *American Journal of Public Health* 98(7):1241-47.
- Beck, Audrey N., Brian K. Finch, Shih-Fan Lin, Robert A. Hummer, and Ryan K. Masters. 2014. "Racial Disparities in Self-Rated Health: Trends, Explanatory Factors, and the Changing Role of Socio-Demographics." *Social Science & Medicine* 104:163-77.
- Bhatta, Tirth R., Jeffrey M. Albert, Eva Kahana, and Nirmala Lekhak. 2017. "Early Origins of Later Life Psychological Well-Being? A Novel Application of Causal Mediation Analysis to Life Course Research." *The Journals of Gerontology: Series B* 73(1):160-70.
- Bibbins-Domingo, Kirsten, Mark J. Pletcher, Feng Lin, Eric Vittinghoff, Julius M. Gardin, Alexander Arynchyn, Cora E. Lewis, O. Dale Williams, and Stephen B. Hulley. 2009. "Racial Differences in Incident Heart Failure among Young Adults." *New England Journal of Medicine* 360(12):1179-90.
- Bonilla-Silva, Eduardo. 2018. *Racism Without Racists: Color-Blind Racism and the Persistence of Racial Inequality in America*. Lanham, MD: Rowman and Littlefield.
- _____. 1997. "Rethinking Racism: Toward A Structural Interpretation." *American Sociological Review* 62(3):465-80.
- Branscombe, Nyla R., Michael T. Schmitt, and Richard D. Harvey. 1999. "Perceiving Pervasive Discrimination Among African Americans: Implications for Group Identification and Well-Being." *Journal of Personality and Social Psychology* 77(1):135-49.

- Brondolo, Elizabeth, Nisha Brady Ver Halen, Melissa Pencille, Danielle Beatty, and Richard J. Contrada. 2009. "Coping with Racism: A Selective Review of the Literature and a Theoretical and Methodological Critique." *Journal of Behavioral Medicine* 32(1):64-88.
- Brown, Tyson H., and Taylor W. Hargrove. 2018. "Psychosocial Mechanisms Underlying Older Black Men's Health." *The Journals of Gerontology: Series B* 73(2):188-97.
- Brown, Tyson H., Liana J. Richardson Liana, Taylor W. Hargrove, Courtney S. Thomas. 2016. "Using Multiple-hierarchy Stratification and Life Course Approaches to Understand Health Inequalities: The Intersecting Consequences of Race, Gender, SES, and Age." *Journal of Health and Social Behavior* 57(2):200-22.
- Brown, Tyson H. 2016. "Diverging Fortunes: Racial/Ethnic Inequality in Wealth Trajectories in Middle and Late Life." *Racial and Social Problems*, 8(1), 29-41.
- Brown, Tyson H. Angela M. O'Rand, and Daniel E. Adkins. 2012. "Race-Ethnicity and Health Trajectories: Tests of Three Hypotheses across Multiple Groups and Health Outcomes." *Journal of Health and Social Behavior* 53(3):359-77.
- Bureau of Labor Statistics. 2017. "Household Data Annual Averages." Table 10: Employed Persons by Occupation, Race, Hispanic, or Latino Ethnicity, and Sex.
- Burchard, Esteban González, Elad Ziv, Natasha Coyle, Scarlett Lin Gomez, Hua Tang, Andrew J. Karter, Joanna L. Mountain, Eliseo J. Pérez-Stable, Dean Sheppard, and Neil Risch. 2003. "The Importance of Race and Ethnic Background in Biomedical Research and Clinical Practice." *The New England Journal of Medicine* 348(12):1170-5.
- Bynum, Mia Smith, E. Thomaseo Burton, and Candace Best. 2007. "Racism Experiences and Psychological Functioning in African American College Freshmen: Is Racial Socialization a Buffer?" *Cultural Diversity and Ethnic Minority Psychology* 13(1):64-71.
- Chambers, Earle C., Eugene S. Tull, Henry S. Fraser, Nyasha R. Mutunhu, Natasha Sobers, and Elisa Niles. 2004. "The Relationship of Internalized Racism to Body Fat Distribution and Insulin Resistance Among African Adolescent Youth." *Journal of the National Medical Association* 96(12):1594-98.
- Cokley, Kevin. 2007. "Critical Issues in The Measurement of Ethnic and Racial Identity: A Referendum on The State of The Field." *Journal of Counseling Psychology* 54(3):224-34.

- Coleman, Major G., William A. Darity Jr, and Rhonda V. Sharpe. 2008. "Are Reports of Discrimination Valid? Considering the Moral Hazard Effect." *American Journal of Economics and Sociology* 67(2):149-75.
- Conley, Dalton. 1999. *Being Black, Living in The Red: Race, Wealth, and Social Policy in America*. Berkeley, CA: University of California Press.
- Coleman, Major G., William A. Darity Jr, and Rhonda V. Sharpe. 2008. "Are Reports of Discrimination Valid? Considering the Moral Hazard Effect." *American Journal of Economics and Sociology* 67(2):149-75.
- Collins, Patricia Hill. 2015. "Intersectionality's Definitional Dilemmas." *Annual Review of Sociology* 41(1):1-20.
- _____. 2000. *Black Feminist Thought: Knowledge, Consciousness, and the Politics of Empowerment*. New York, NY: Routledge.
- Cose, Ellis. 1994. *The Rage of a Privileged Class: Why are Middle Class Blacks Angry? Why Should America Care?* NY: Harper Books.
- Cross, William, Jr. 2005. *Ethnicity, Race, and Identity*. Chicago, IL: University of Chicago Press.
- Crenshaw, Kimberly. 1989. "Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory, and Antiracist Politics." *University of Chicago Legal Forum*, 1989(1), 139-67.
- Cummings, Jason L., and Pamela Braboy Jackson. 2008. "Race, Gender, and SES Disparities in Self-Assessed Health, 1974-2004." *Research on Aging* 30(2):137-67.
- Dawson, Michael. 1994. *Behind the Mule: Race and Class in African American Politics*. Princeton, NJ: Princeton University Press.
- Deindl, Christian. 2013. "The Influence of Living Conditions in Early Life on Life Satisfaction in Old Age." *Advances in Life Course Research* 18(1):107-14.
- Earnshaw, Valerie A., Lisa Rosenthal, Jessica B. Lewis, Emily C. Stasko, Jonathan N. Tobin, Tené T. Lewis, Allecia E. Reid, and Jeannette R. Ickovics. 2013. "Maternal Experiences with Everyday Discrimination and Infant Birth Weight: A Test of Mediators and Moderators Among Young, Urban Women of Color." *Annals of Behavioral Medicine* 45(1):13-23.
- Elder, Glen H., Jr. 1974. *Children of the Great Depression: Social Change in Life Experience*. Chicago: University of Chicago Press.

- Facione, Nancy, & Facione, Peter. 2007. "Perceived Prejudice in Healthcare and Women's Health Protective Behavior." *Nursing Research*, 56(3), 175–184.
- Fang, J., & Alderman, M. H. 2004. "Does Supplemental Private Insurance Affect Care of Medicare Recipients Hospitalized for Myocardial Infarction?" *American Journal of Public Health*, 94(5), 778–782.
- Farmer, Melissa M., and Kenneth F. Ferraro. 2005. "Are Racial Disparities in Health Conditional on Socioeconomic Status?" *Social Science & Medicine* 60(1):191-204.
- Feagin, Joe and Melvin Sikes. 1995. *Living with Racism: The Black Middle Class Experience*. Boston: Beacon Press.
- Feagin, Joe. 1991. "The Continuing Significance of Race: Anti-Black Discrimination in Public Places." *American Sociological Review*, 56(1), 101-116.
- Fischer, Ann R., and Christina M. Shaw. 1999. "African Americans' Mental Health And Perceptions of Racist Discrimination: The Moderating Effects of Racial Socialization Experiences and Self-Esteem." *Journal of Counseling Psychology* 46(3):395-407.
- Forman, Tyrone A. 2003. "The Social Psychological Costs of Racial Segmentation in The Workplace: A Study of African Americans' Well-Being*." *Journal of Health and Social Behavior* 44(3):332-52.
- Gale, Catharine R., Tom Booth, René Möttus, Diana Kuh, and Ian J. Deary. 2013. "Neuroticism and Extraversion in Youth Predict Mental Wellbeing and Life Satisfaction 40 Years Later." *Journal of Research in Personality* 47(6):687-97.
- Gaddis, S. Michael. "Discrimination in the Credential Society: An Audit Study of Race and College Selectivity in the Labor Market." *Social Forces*, 93(4):1451-79.
- George, Linda. 2013. Life Course Perspectives on Mental Health. In C.S. Aneshensel, J.C. Phelan and A. Bierman (Eds.), *Handbook of the Sociology of Mental Health*. New York: Springer.
- Goff, Phillip Atiba, Jennifer L. Eberhardt, Melissa J. Williams, and Matthew Christian Jackson. 2008. "Not Yet Human: Implicit Knowledge, Historical Dehumanization, and Contemporary Consequences." *Journal of Personality and Social Psychology* 94(2):292-306.

- Guralnik, Jack M., Kenneth C. Land, Dan Blazer, Gerda G. Fillenbaum and Laurence G. Branch. 1993. "Educational Status and Active Life Expectancy among Older Blacks and Whites." *The New England Journal of Medicine* 329(2):110-116.
- Haas, Steven. 2008. "Trajectories of Functional Health: The 'Long Arm' of Childhood Health and Socioeconomic Factors." *Social Science & Medicine* 66(4):849-61.
- Haas, Steven, and Leah Rohlfen. 2010. "Life Course Determinants of Racial And Ethnic Disparities in Functional Health Trajectories." *Social Science & Medicine* 70(2):240-50.
- Hamil-Luker, Jenifer, and Angela M. O'Rand. 2007. "Gender Differences in the Link Between Childhood Socioeconomic Conditions and Heart Attack Risk in Adulthood." *Demography* 44(1):137-58.
- Hamilton, Darrick, Willaim Darity Jr., Anne E. Price, Vishnu Sridharan and Rebecca Tippet. 2015. "Umbrellas Don't Make It Rain: Why Studying and Working Hard Isn't Enough for Black Americans." Insight Center for Community Economic Development.
- Hargrove, Taylor W. 2018. "Intersecting Social Inequalities and Body Mass Index Trajectories from Adolescence to Early Adulthood." *Journal of Health and Social Behavior* 59(1):56-73.
- Hargrove, Taylor W. and Tyson H. Brown. 2015. "A Life Course Approach to Inequality: Examining Racial/Ethnic Differences in the Relationship between Early Life Socioeconomic Conditions and Health in Later Life Among Men." *Ethnicity and Disease*, 25(3), 313-20.
- Harris, Ricci, Martin Tobias, Mona Jeffreys, Kiri Waldegrave, Saffron Karlsen, and James Nazroo. 2006. "Racism and Health: The Relationship Between Experience of Racial Discrimination and Health in New Zealand." *Social Science & Medicine* 63(6):1428-41.
- Harvey-Wingfield, Adia. 2013. *No More Invisible Man: Race and Gender in Men's Work*. Philadelphia: Temple University Press.
- Harvey Wingfield, Adia and Renee Alston. 2012. "The Understudied Case of Black Professional Men: Advocating an Intersectional Approach." *Sociology Compass*, 6(9): 728-739.
- Hayward, Mark D., and Bridget K. Gorman. 2004. "The Long Arm of Childhood: The Influence of Early-Life Social Conditions on Men's Mortality." *Demography* 41(1):87-107.

- Helms, Janet E. (1990). "An Overview of Black Racial Identity Theory". In Janet E. Helms (Ed.), *Black and White Racial Identity: Theory, Research, and Practice* (pp. 9–32). Westport, Conn: Praeger.
- Higginbotham, E. 2009. "Entering a Profession: Race, Gender and Class in the Lives of Black Women Attorneys." Pp. 22–49 in *Emerging Intersections: Race, Class and Gender in Theory, Policy and Practice*, edited by B. T. Dill and R. E. Zambrana. New Brunswick, NJ: Rutgers University.
- House, James S., Paula M. Lantz, and Pamela Herd. 2005. "Continuity and Change in the Social Stratification of Aging and Health Over the Life Course: Evidence from a Nationally Representative Longitudinal Study From 1986 to 2001/2002 (Americans' Changing Lives Study)." *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences* 60(Special Issue 2):S15-S26.
- Hout, Michael. 2012. "Social and Economic Returns to College Education in the United States." *Annual Review of Sociology* 38(1):379-400.
- Hughes, Michael, K. Jill Kiecolt, and Verna M. Keith. 2014. "How Racial Identity Moderates the Impact of Financial Stress on Mental Health among African Americans." *Society and Mental Health* 4(1):38-54.
- Hughes, Michael and Melvin E. Thomas. 1998. "The Continuing Significance of Race Revisited: A Study of Race, Class, and Quality of Life in America, 1972 to 1996." *American Sociological Review* 63(6):785-795.
- Jackson, Pamela B. & Williams, David R. (2006). "The Intersection of Race, Gender, and SES: Health Paradoxes." In A. Shulz & L. Mullings (Ed.), *Gender, Race, Class and Health*. San Francisco: Jossey-Bass.
- Jackson, Pamela. 2005. "Health Inequalities Among Minority Populations." *Journal of Gerontology*, 60B: 63-67.
- Taylor, Jerome, & Jackson, Beryl. B. 1991. "Evaluation of A Holistic Model of Mental Health Symptoms in African American Women." *The Journal of Black Psychology*, 18, 19–45.
- Taylor, Jerome, & Jackson, Beryl. 1990. "Factors Affecting Alcohol Consumption in Black Women, Part II. *The International Journal of the Addictions*, 25(12), 1415–1427.
- Kelley-Moore, Jessica A., and Kenneth F. Ferraro. 2004. "The Black/White Disability Gap: Persistent Inequality in Later Life?" *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences* 59(1):S34-S43.

- Keppel, Kenneth G., Jeffrey N. Percy and Diane K. Wagener. 2002. "Trends in Racial and Ethnic-Specific Rates for the Health Status Indicators: United States, 1990-98." *Healthy People 2000 Statistical Notes / National Center for Health Statistics*(23):1-16.
- Kessler, R. C, G. Andrews, L. J Colpe, E. Hiripi, D. K Mroczek, S. L. T Normand, E. E Walters, and A. M Zaslavsky. 2002. "Short Screening Scales to Monitor Population Prevalences and Trends in Non-Specific Psychological Distress." *Psychological Medicine* 32(6):959-76.
- Keys, Corey L. M. 2009. "The Black–White Paradox in Health: Flourishing in the Face of Social Inequality and Discrimination." *Journal of Personality* 77(6):1677-706.
- Kiang, L., Yip, T., Gonzales-Backen, M., Witkow, M., & Fuligni, A.J. (2006). "Ethnic Identity and The Daily Psychological Well-Being of Adolescents from Mexican and Chinese Backgrounds." *Child Development*, 77, 1338-1350.
- Kim, Jinyoung, and Emily Durden. 2007. "Socioeconomic Status and Age Trajectories of Health." *Social Science & Medicine* 65(12):2489-502.
- Kochanek, K. D., Murphy, S. L., Xu, J. Q., & Tejada-Vera, B. (2016). Deaths: Final data for 2014. National vital statistics reports. (vol 65 no 4). Hyattsville, MD: National Center for Health Statistics.
- Kramer, Michael R., and Carol R. Hogue. 2009. "Is Segregation Bad for Your Health?" *Epidemiologic Reviews* 31(1):178-94.
- Krieger, Nancy, Akiko Okamoto, and Joseph V. Selby. 1998. "Adult Female Twins' Recall of Childhood Social Class and Father's Education: A Validation Study for Public Health Research." *American Journal of Epidemiology* 147(7):704-08.
- Kwate, Naa Oyo A., and Ilan H. Meyer. 2011. "On Sticks and Stones and Broken Bones." *Du Bois Review: Social Science Research on Race* 8(01):191-98.
- Lacy, Karyn R. 2007. *Blue-chip Black: Race, Class, and Status in the New Black middle Class*. Berkeley: University of California Press.
- Landrine, Hope, Elizabeth Klonoff, Irma Corral, Senaida Fernandez, and Scott Roesch. 2006. "Conceptualizing and Measuring Ethnic Discrimination in Health Research." *Journal of Behavioral Medicine*, 29(1), 79–94.
- Landry, Bart. 1987. *The new Black Middle Class*. Berkeley: University of California Press.

- Latham, Kenzie. 2014. "The "Long Arm" of Childhood Health: Linking Childhood Disability to Late Midlife Mental Health." *Research on Aging* 37(1):82-102.
- Lee, Yeonjin. 2017. "Early-Life Socioeconomic Conditions, Height, and Functional Health Status in Later Life: Evidence from South Korea." *Asia Pacific Journal of Public Health* 29(6):475-84.
- Lee, Richard M. 2005. "Resilience Against Discrimination: Ethnic Identity and Other-Group Orientation as Protective Factors for Korean Americans." *Journal of Counseling Psychology* 52(1):36-44.
- _____. 2003. "Do Ethnic Identity and Other-Group Orientation Protect Against Discrimination for Asian Americans?" *Journal of Counseling Psychology* 50(2):133-41.
- Lewis, Amanda E. and John B. Diamond. 2015. *Despite the Best Intentions: How Racial Inequality Thrives in Good Schools*. New York, NY: Oxford University Press.
- Lewis, Tené T., Lisa L. Barnes, Julia L. Bienias, Daniel T. Lackland, Denis A. Evans, and Carlos F. Mendes de Leon. 2009. "Perceived Discrimination and Blood Pressure in Older African American and White Adults." *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences* 64A(9):1002-08.
- Lewis, T. T., Everson-Rose, S., Powell, L. H., Matthews, K. A., Brown, C., Karavolos, K., & Wesley, D. (2006). "Chronic Exposure to Everyday Discrimination and Coronary Artery Calcification in African-American Women: The SWAN Heart Study." *Psychosomatic Medicine*, 68, 362-368.
- Liu, Hui, and Debra Umberson. 2015. "Gender, Stress in Childhood and Adulthood, and Trajectories of Change in Body Mass." *Social Science & Medicine* 139:61-69.
- Link, Bruce G., Ezra S. Susser, Pam Factor-Litvak, Dana March, Katrina L. Kezios, Gina S. Lovasi, Andrew G. Rundle, Shakira F. Suglia, Kim M. Fader, Howard F. Andrews, Eileen Johnson, Piera M. Cirillo, and Barbara A. Cohn. 2017. "Disparities in Self-Rated Health Across Generations and Through the Life Course." *Social Science & Medicine* 174:17-25.
- Lukachko, Alicia, Mark L. Hatzenbuehler, and Katherine M. Keyes. 2014. "Structural Racism and Myocardial Infarction in The United States." *Social Science & Medicine* 103:42-50.
- Mirowsky, John, Catherine E. Ross and John R. Reynolds. 2000. "Links Between Social

Status and Health Status.” Chapter 4, pp. 47-67 in *The Handbook of Medical Sociology*, 5th Edition, edited by Chloe E. Bird, Peter Conrad and Allen M. Fremont. Upper Saddle River, NJ: Prentice Hall.

- Mong, Sherry N., and Vincent J. Roscigno. 2010. "African American Men and the Experience of Employment Discrimination." *Qualitative Sociology* 33(1):1-21.
- Montez, Jennifer Karas, and Mark D. Hayward. 2014. "Cumulative Childhood Adversity, Educational Attainment, and Active Life Expectancy Among U.S. Adults." *Demography* 51(2):413-35.
- Mossakowski, Krysia N. 2003. "Coping with Perceived Discrimination: Does Ethnic Identity Protect Mental Health?" *Journal of Health and Social Behavior* 44(3):318-31.
- Neblett, E. W., Jr., Shelton, J. N., & Sellers, R. M. 2004. "The Roles of Racial Identity in Managing Daily Hassles." In G. Philogène (Ed.), *Race and Identity: The Legacy of Kenneth Clark* (pp. 77–90). Washington, DC: American Psychological Association Press.
- Nguyen, Ann W., Linda M. Chatters, Robert Joseph Taylor, María P. Aranda, Karen D. Lincoln, and Courtney S. Thomas. 2018. "Discrimination, Serious Psychological Distress, and Church-Based Emotional Support Among African American Men Across the Life Span." *The Journals of Gerontology: Series B* 73(2):198-207.
- Noh, Samuel, Morton Beiser, Violet Kaspar, Feng Hou, and Joanna Rummens. 1999. "Perceived Racial Discrimination, Depression, and Coping: A Study of Southeast Asian Refugees in Canada." *Journal of Health and Social Behavior* 40(3):193-207.
- Oliver, Melvin L. and Thomas Shapiro. 2006. *Black Wealth/White Wealth: A New Perspective on Racial Inequality*. New York: Routledge.
- Pais, Jeremy. 2014. "Cumulative Structural Disadvantage and Racial Health Disparities: The Pathways of Childhood Socioeconomic Influence." *Demography* 51(5):1729-53.
- Pager, Devah, Bruce Western, and Bart Bonikowski. 2009. "Discrimination in a Low-Wage Labor Market: A Field Experiment." *American Sociological Review* 74(5):777-99.
- Pager, Devah. 2005. "Double Jeopardy: Race, Crime, and Getting a Job." *Wisconsin Law Review* 2005(2):617-62.
- Pakpahan, Eduwin, Rasmus Hoffmann, and Hannes Kröger. 2017. "Retrospective Life

Course Data from European Countries on How Early Life Experiences Determine Health in Old Age and Possible Mid-Life Mediators." *Data in Brief* 10:277-82.

Pascoe, Elizabeth A., and Laura Smart Richman. 2009. "Perceived Discrimination and Health: A Meta-Analytic Review." *Psychological Bulletin* 135(4):531-54.

Pattillo-McCoy, Mary. 2000. "The Limits of Out-Migration for the Black Middle Class." *Journal of Urban Affairs* 22(3): 225–241.

Pavela, G. 2017. "Is Childhood Socioeconomic Status Independently Associated with Adult BMI after Accounting for Adult and Neighborhood Socioeconomic Status?" *Plos One* 12(1):22.

Pearlin, Leonard I., Elizabeth G. Menaghan, A. Lieberman Morton, and Joseph T. Mullan. 1981. "The Stress Process." *Journal of Health and Social Behavior* 22(4):337-56.

Phelan, Jo C., Bruce G. Link, and Parisa Tehranifar. 2010. "Social Conditions as Fundamental Causes of Health Inequalities: Theory, Evidence, and Policy Implications." *Journal of Health and Social Behavior* 51(1 suppl):S28-S40.

Phinney, Jean S., Gabriel Horenczyk, Karmela Liebkind, and Paul Vedder. 2001. "Ethnic Identity, Immigration, and Well-Being: An Interactional Perspective." *Journal of Social Issues* 57(3):493-510.

Phinney, Jean S., and Victor Chavira. 1995. "Parental Ethnic Socialization and Adolescent Coping with Problems Related to Ethnicity." *Journal of Research on Adolescence* 5(1):31-53.

Ravelli, Gian-Paolo, Zena A. Stein, and Mervyn W. Susser 1976. "Obesity in Young Men after Famine Exposure in Utero and Early Infancy." *New England Journal of Medicine* 295(7):349-53.

Read, Jen'nan Ghazal, and Bridget K. Gorman. 2006. "Gender Inequalities in U.S. Adult Health: The Interplay of Race and Ethnicity." *Social Science & Medicine* 62(5):1045-65.

Richardson, Liana J., and Tyson H. Brown. 2016. "(En)Gendering Racial Disparities in Health Trajectories: A Life Course and Intersectional Analysis." *SSM - Population Health* 2:425-35.

Rogers, I. 2003. "The Influence of Birthweight and Intrauterine Environment on Adiposity and Fat Distribution in Later Life." *International Journal of Obesity and Related Disorders* 27(7):755-77.

Roscigno, Vincent J., Lisa M. Williams, and Reginald A. Byron. 2012. "Workplace

- Racial Discrimination and Middle-Class Vulnerability." *American Behavioral Scientist* 56(5):696-710.
- Roscigno, Vincent J. 2007. *The Face of Discrimination: How Race and Gender Impact Work and Home Lives*. Lanham, Md.: Rowman & Littlefield.
- Ross, Catherine E., and John Mirowsky. 2011. "The Interaction of Personal and Parental Education on Health." *Social Science & Medicine* 72(4):591-99.
- Schafer, Markus H., Kenneth F. Ferraro, and Sarah A. Mustillo. 2011. "Children of Misfortune: Early Adversity and Cumulative Inequality in Perceived Life Trajectories." *American Journal of Sociology* 116(4):1053-91.
- Schnittker, Jason, and Valerio Bacak. 2014. "The Increasing Predictive Validity of Self-Rated Health." *Plos One* 9(1).
- Schulz, Amy J., Clarence C. Gravlee, David R. Williams, Barbara A. Israel, Graciela Mentz, and Zachary Rowe. 2006. "Discrimination, Symptoms of Depression, and Self-Rated Health Among African American Women in Detroit: Results from a Longitudinal Analysis." *American Journal of Public Health* 96(7):1265-70.
- Scott, Lionel D. 2003. "The Relation of Racial Identity and Racial Socialization To Coping with Discrimination Among African American Adolescents." *Journal of Black Studies* 33(4):520-38.
- Sellers, Robert M., Nikeea Copeland-Linder, Pamela P. Martin, and R. L'Heureux Lewis. 2006. "Racial Identity Matters: The Relationship between Racial Discrimination and Psychological Functioning in African American Adolescents." *Journal of Research on Adolescence* 16(2):187-216.
- Shelton, Jason E and Michael O. Emerson (2010). "Extending the Debate Over Nationalism Versus Integration: How Cultural Commitments and Assimilation Trajectories Influence Beliefs About Black Power." *Journal of African American Studies*, 14, 312–336.
- Shelton, J.E., Greene, A.D. 2012. Get Up, Get Out, and Git Sumthin': How Race and Class Influence African Americans' Attitudes About Inequality. *American Behavioral Scientist*, 56 (11), 1481-1508.
- Shelton, Jason E., and George Wilson. 2006. "Socioeconomic Status and Racial Group Interests Among Black Americans." *Sociological Spectrum* 26(2):183-204.
- Sternthal, Michelle J., Natalie Slopen, and David R. Williams. 2011. "Racial Disparities in Health." *Du Bois Review: Social Science Research on Race* 8(01):95-113.

- Streib, Jessi. 2015. *The Power of The Past: Understanding Cross-Class Marriages*. New York, NY: Oxford University Press.
- Terrell, Francis, Miller, Aletha, Foster, Kenneth and C. Edward Watkins Jr. (2006). "Racial Discrimination-Induced Anger and Alcohol Use Among Black Adolescents." *Adolescence*, 41(163), 485–492.
- Tampubolon, Gindo. 2015. "Growing Up in Poverty, Growing Old in Infirmity: The Long Arm of Childhood Conditions in Great Britain." *Plos One* 10(12):e0144722.
- Taylor, Miles G. 2008. "Timing, Accumulation, and the Black/White Disability Gap in Later Life. A Test of Weathering." *Research on Aging* 30(2):226-250.
- Terrell, Francis, Miller, Aletha, Foster, Kenneth and C. Edward Watkins Jr. (2006). "Racial Discrimination-Induced Anger and Alcohol Use Among Black Adolescents." *Adolescence*, 41(163), 485–492.
- Thomas, Courtney S. 2015. "A New Look at the Black Middle Class: Research Trends and Challenges." *Sociological Focus* 48(3):191-207.
- Thompson, Vetta L. Sanders. 1996. "Perceived Experiences of Racism as Stressful Life Events." *Community Mental Health Journal* 32(3):223-33.
- Thornton, Rachel L. J., Crystal M. Glover, Crystal W. Cené, Deborah C. Glik, Jeffrey A. Henderson, and David R. Williams. 2016. "Evaluating Strategies for Reducing Health Disparities by Addressing the Social Determinants of Health." *Health Affairs* 35(8):1416-23.
- Turner, R. Jay, N. Brown Tony, and Hale William Beardall. 2017. "Race, Socioeconomic Position, and Physical Health: A Descriptive Analysis." *Journal of Health and Social Behavior* 58(1):23-36.
- Turner, R. Jay, Courtney S. Thomas, and Tyson H. Brown. 2016. "Childhood Adversity and Adult Health: Evaluating Intervening Mechanisms." *Social Science & Medicine* 156:114-24.
- Umberson, D., J. S. Olson, R. Crosnoe, H. Liu, T. Pudrovskaya, and R. Donnelly. 2017. "Death of Family Members as an Overlooked Source of Racial Disadvantage in The United States." *Proceedings of the National Academy of Sciences of the United States of America* 114(5):915-20.
- Vanhoutte, Bram, and James Nazroo. 2016. "Life Course Pathways to Later Life Wellbeing: A Comparative Study of the Role of Socio-Economic Position in England and the U.S." *Journal of Population Ageing* 9(1-2):157-77.

- Wagner, Julie, and Gina Abbott. 2007. "Depression and Depression Care in Diabetes: Relationship to Perceived Discrimination in African Americans." *Diabetes Care* 30(2):364-6.
- Warner, David F., and Tyson H. Brown. 2011. "Understanding How Race/Ethnicity and Gender Define Age-Trajectories of Disability: An Intersectionality Approach." *Social Science & Medicine* 72(8):1236-48.
- Weiner, Bernard. 1985. "An Attributional Theory of Achievement Motivation and Emotion." *Psychological Review* 92(4):548-73.
- Weisbuch, Max, Kristin Pauker, and Nalini Ambady. 2009. "The Subtle Transmission of Race Bias via Televised Nonverbal Behavior." *Science* 326(5960):1711-14.
- Wheaton, Felicia V., Courtney S. Thomas, Carly Roman, and Cleopatra M. Abdou. 2018. "Discrimination and Depressive Symptoms Among African American Men Across the Adult Lifecourse." *The Journals of Gerontology: Series B* 73(2):208-18.
- Williams, David R., Naomi Priest, and Norman B. Anderson. 2016. "Understanding Associations Among Race, Socioeconomic Status, and Health: Patterns and Prospects." *Health Psychology* 35(4):407-11.
- Williams, David R. 2012. "Miles to Go Before We Sleep: Racial Inequities in Health." *Journal of Health and Social Behavior*, 53(3), 279-95.
- Williams, David R., and Selina A. Mohammed. 2009. "Discrimination and Racial Disparities in Health: Evidence and Needed Research." *Journal of Behavioral Medicine* 32(1):20-47.
- Williams, David R., and Michelle Sternthal. 2010. "Understanding Racial-Ethnic Disparities in Health: Sociological Contributions." *Journal of Health and Social Behavior* 51: S15-27.
- Williams, David R. 2004. "Racism and Health." Pp. 69-80 in *Closing the Gap: Improving the Health of Minority Elders in the New Millennium*, Whitfield, K. (Ed.). Washington, DC: Gerontological Society of America.
- Williams, David R., and Chiquita Collins. 2001. "Racial Residential Segregation: A Fundamental Cause of Racial Disparities in Health." *Public Health Reports* 116(5):404-16.
- Williams, David R., Yu Yan, James S. Jackson, and Norman B. Anderson. 1997. "Racial Differences in Physical and Mental Health." *Journal of Health Psychology* 2(3):335-51.

Wilson, George and Roscigno, Vincent. 2010. "Race and Downward Occupational Mobility from Privileged Occupations: African American/White Dynamics Across the Early Work-Career." *Social Science Research*, 39, 67-77.

Wood, Natasha, David Bann, Rebecca Hardy, Catharine Gale, Alissa Goodman, Claire Crawford, and Mai Stafford. 2017. "Childhood Socioeconomic Position and Adult Mental Wellbeing: Evidence from Four British Birth Cohort Studies." *Plos One* 12(10).

Zaw, Khaing, Darrick Hamilton, and William Darity. 2016. "Race, Wealth and Incarceration: Results from the National Longitudinal Survey of Youth." *Race and Social Problems* 8(1):103-15.

Biography

Carlos Tavares is doctoral candidate in Sociology at Duke University. He was born on October 29th, 1979 in Lisbon, Portugal. His family is from Cabo Verde and Carlos spent the first four years of his life in Praia, Cabo Verde. He also attended middle school and high school in Cabo Verde. In 2004, Carlos received his Bachelor of Arts degree in Sociology and Bachelor of Science degree in Psychology from Eastern Nazarene College in Quincy, MA. Carlos received a Master of Arts degree in Sociology from Lehigh University in 2006. His primary research interests are race and ethnicity, health, aging and the life course, social class, and religion. Carlos has two published work on multiracial congregations and youth religious socialization. His articles “Why Can’t We Be Friends” and “Denominational Differences in Congregational Youth Ministry Programming and Empirical Evidence of Systematic of Non-Response Biases in Surveys.” are published in the *Review of Religious Research*. His dissertation chapter on the role of racial identity as a protective mechanism received a revise and resubmit at *Sociology and Race and Ethnicity*. Carlos was a National Institutes of Health-National Institute on Aging T32 Pre-Doctoral Trainee at the Duke Population Research Institute from 2014 until 2017. Starting July 1, 2018, Carlos will be Assistant Professor of Sociology at Lafayette College in Easton, PA.