

RACE-RELATED STRESS AND HOPELESSNESS IN AFRICAN AMERICANS:
MODERATING ROLE OF SOCIAL SUPPORT

A Thesis Presented to
The Faculty of the Department
of Psychology
University of Houston

In Partial Fulfillment
Of the Requirements for the Degree of
Master of Arts

By
Mary O. Odafe
August 2016

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ABSTRACT

The disparaging mental health outcomes associated with racial discrimination are well documented in the scientific literature. Despite strong links to severe mental illness, hopelessness is largely overlooked as a consequence of discrimination in existing empirical research. Building upon the available literature, the current study was intended to explore the association of race-related stress and hopelessness in African American adults. Utilizing a stress, appraisal, and coping framework, multiple dimensions of social support were examined as plausible protective factors against the negative effects of race-related stress. Hierarchical multiple regression analyses were conducted to assess the main and interactive effects of race-related stress and various dimensions of social support (appraisal, belonging, and self-esteem) in relation to reported symptoms of hopelessness. The three dimensions of perceived social support were significantly associated with self-reported symptoms of hopelessness, with self-esteem social support emerging as the strongest predictor. The interactive effects of race-related stress and social support were non-significant, though the interaction of self-esteem social support and race-related stress approached significance. Findings suggest the need for consideration of additional culturally-relevant factors that may serve to mitigate the effects of race-related stress among African Americans. Additionally, having a collective sense of moral for one's race group (via self-esteem social support) may promote resilience in the face of discrimination, though more work is needed to confirm this association. Implications of the current findings, limitations, and directions for future investigation are discussed.

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Chapter 1: Literature Review

1.1 Introduction

Despite widespread belief that racial discrimination is no longer problematic in U.S. society, approximately 1 in 3 African Americans reported having at least one personal experience of discrimination in the past year (Doherty, 2013). Previous scholars have provided extensive evidence of the disparaging mental health consequences associated with perceived discrimination in African American populations (Chae, Lincoln, & Jackson, 2011; Clark, Anderson, Clark, & Williams, 1999; Fernando, 1984; Noh & Kaspar, 2003; Ong, Fuller-Rowell, & Burrow, 2009; Polanco-Roman & Miranda, 2013). As the presence of racism persists in society, there remains an urgent need for refined empirical study intended to gain insight on the potentially moderating factors of perceived discrimination.

Hopelessness is widely considered as a stress response to perceived discrimination and is linked to the development of negative health outcomes including depression and physical illness. Further, the construct has even been detected as the strongest predictor of suicidality (relative to depression), particularly among African Americans (Durant et al., 2006; Hirsch, Visser, Chang, & Jeglic, 2012). Despite compelling accounts of hopelessness and subsequent psychopathology, there remains a dearth in empirical literature in which hopelessness is examined as a primary outcome of perceived discrimination. However, it is necessary to note that not all African Americans who experience racial discrimination develop feelings of hopelessness. Social support is frequently cited as a protective factor based on the collectivistic nature of African American culture, and may help to ameliorate effects of perceived discrimination. However, in contrast to traditional study of social support as a unitary construct, the study of specific types of social

support may lead to deeper understanding of the specific aspects of social support that may moderate the effects of discrimination on hopelessness.

1.2 The Persistence of Racism and Discrimination in America

African Americans are disproportionately exposed to ongoing and acute environmental stressors, the degree to which has been experienced by few, if any, ethnic groups (Clark et al., 1999). Particularly, experiences of racism and discrimination¹ have served as a primary source of stress for African Americans both historically and in current times (Brown et al., 2000; Clark et al., 1999; Harrell, 2000; Mays, Cochran, & Barnes, 2007; Ong et al., 2009). Defined by Yetman (1985, 1999), *ethnic discrimination* is a form of behavioral racism in which equitable treatment to an individual or group is denied by another (individual or institution) on the basis of ethnic group affiliation. Harrell (2000) asserts that a key element to understanding the impact of racism is that it lies in the *subjective* judgment of the individual. *Perceived discrimination* refers to the subjective experience of racism or discrimination. Therefore, the idea of ‘racism’ cannot be limited to only experiences that can be objectively quantified as such (Clark et al., 1999).

Despite a tumultuous racial history in the U.S., some endorse the notion that America is now a “post-racial” society (Alexander, 2013; Tesler & Sears, 2010; Wong, Derthick, David, Saw, & Okazaki, 2013). Nonetheless, evidence of discrimination against people of color remains. In a recent survey conducted by Pew Research Center (Doherty, 2013), African Americans reported being treated less fairly than Whites in a number of common instances including dealing with the police (70%), in courtrooms (68%), in the workplace (54%), stores

¹ Note that the label “racism” is used to describe a specific application of race-based discriminatory behavior. While the labels racism and discrimination are often used interchangeably in the cited text, they are not synonymous. However, the two are inherently linked as presented in this text.

and restaurants (44%), public schools (51%), health care systems (47%) and in voting during elections (48%). Current scholars assert that racist beliefs have not disappeared, but rather, its presentations have evolved from overtly racist behavior into more subtle, covert, or subconscious acts of “modern” racism such as microaggressions or aversive racism (see Gaertner & Dovidio, 2005; McConahay, 1986; Sue et al., 2007; Sue, Capodilupo, & Holder, 2008). The subtle nature of these contemporary forms of racism may prove to more insidious than more overt acts. In sum, the evolution of racist behavior, combined with the ongoing presence of traditional presentations of racism, serve as evidence that African Americans remain at increased risk of suffering the demoralizing effects of perceived discrimination.

1.3 Discrimination as a Source of Life Stress: A Stress, Appraisal, and Coping Framework

When acts of discrimination are perceived to exceed individual and collective resources, the resulting stress may serve to threaten one’s well-being (Harrell, 2000). Comparable to daily-life stress (i.e., Folkman & Lazarus, 1980; Lazarus & Folkman, 1984), scholars have coined the term *race-related stress*² (Harrell, 2000; Utsey & Ponterotto, 1996) to describe the occurrence of racism and discrimination that African Americans may potentially experience in everyday life. Enduring experiences of injustice on the basis of color or ethnic group membership have been linked to a number of poor mental and emotional outcomes. Discrimination has been positively associated with psychological distress including poor well-being and life satisfaction (Schulz et al., 2000; Williams et al., 2007; Williams, Neighbors, & Jackson, 2003; Williams, Yu, Jackson, & Anderson, 1997) low self-esteem (Fisher, Wallace, & Fenton, 2000; Rumbaut, 1994;

² Variations of the term include *racism-related stress* (Harrell, 2000). However, the term *race-related stress* (Utsey & Ponterotto, 1996) will be utilized to promote consistent terminology throughout the text.

Verkuyten, 1998), major depression (T. N. Brown et al., 2000; Karlsen & Nazroo, 2002; Kessler, Mickelson, & Williams, 1999; Siefert, Bowman, Heflin, Danziger, & Williams, 2000) anxiety (Kessler et al., 1999), and psychosis (Karlsen & Nazroo, 2002). Similarly, scholars have identified several potential psychological responses to perceived discrimination, including anger, paranoia, anxiety, fear, frustration, resentment, and notably, hopelessness (Bullock & Houston, 1987; Clark et al., 1999; Harrell, 2000).

The psychological response to daily life stress has been analyzed extensively in the broader literature. One such framework is the stress, appraisal, and coping theory, proposed by Lazarus and Folkman (i.e., Folkman & Lazarus, 1980; Lazarus, 2006; Lazarus & Folkman, 1984). In a series of studies, the scholars detail the transactional processes that occur between the individual and the environment when a potential stressor is encountered. The term *stress* is widely used to describe the potentially negative environmental stimuli that are subsequently appraised by the individual. *Appraisal* describes the cognitive process in which the individual determines a) the potential threat of the stressor (primary appraisal), and b) the perceived opportunity of mastery and available coping resources (secondary appraisal). Finally, *coping* describes the ensuing cognitive or behavioral efforts made in response to stress appraisal.

The current study represents a specific application of the stress, appraisal, and coping theory via examination of African American individuals' response to daily encounters with racism and discrimination. Conceptualized as a form of daily life stress (Utsey & Ponterotto, 1996), race-related stress represents the day-to-day encounters of perceived discrimination that are posited to engender appraisal and coping processes consistent with that of Lazarus and Folkman (Clark et al., 1999). Specifically, an individual engages in a two-part appraisal process when a potentially stressful environmental stimulus is encountered. Primary appraisal is

considered the first line interpretation of the stimuli, in which the individual determines if the race-related stressor presents a threat to well-being. The second component of the appraisal process (secondary appraisal, which may occur sequentially or simultaneously to primary appraisal), involves the evaluation of a) the perceived level of controllability over the stressor and b) the perceived availability of coping resources. Here, negative appraisal is posited to occur when the individual perceives low controllability and a lack of available resources. Conversely, positive appraisal occurs when the individual perceives control for the situation and the presence of coping resources.

It is necessary to explore factors of the stress-response process that may be unique to the experience of race-related stress in African Americans. In the following sections, components of the stress, appraisal, and coping process are examined through the lens of race-related stress. First, the impact of persistent race-based discrimination as a stressor is discussed through review of existing literature. Building upon existing literature, hopelessness is presented as a possible outcome of race-related stress. However, specific types of social support are posited to function in the appraisal process and serve as potential buffers to the negative effects of discrimination.

Though the current literature on effects of perceived discrimination is seemingly in-depth, much more work is needed. Notably, the experience of discrimination is often broadly defined and quantified using measures of questionable validity. For example, many existing studies draw associations between perceived discrimination and mental health using measures that only assess the frequency of discriminatory events. This method implies that the frequency with which one experiences discrimination is directly proportional to the resulting level of distress. While this may be accurate in some cases, individuals vary in their tolerance of stressful events. Thus, the use of measures that allow the individual to explicitly indicate psychological

distress resulting from perceived discrimination may be considered advantageous over those that omit this distress. As an additional limitation, previous investigators have relied heavily on college student samples, omitting key demographics and producing findings of limited generalizability. Additional research utilizing samples representative of the larger community may provide more thorough depiction of the hardship African Americans may endure as a result of discrimination. Further, the use of in-depth measures to quantify levels of distress associated with discriminatory events (rather than solely measuring frequency) may lead to more precision in understanding the consequences of perceived discrimination.

1.4 The Role of Hopelessness

Among the noted psychological responses to stressful events, hopelessness has emerged as a common theme in various studies (Abramson, Metalsky, & Alloy, 1989; Clark et al., 1999; Dixon, Heppner, Burnett, & Lips, 1993; Harrell, 2000). Formally defined, Abramson et al. (1989) conceptualized hopelessness as “the expectation that highly desired outcomes are unlikely to occur or that highly aversive outcomes are likely to occur and that no response in one’s repertoire will change the likelihood of these outcomes.” Feelings of hopelessness are believed to be instrumental in the development of more severe psychopathology. For example, Beck and colleagues (1985) identified hopelessness as the strongest predictor of eventual suicide, while depressive symptoms (measured by the Beck Depression Inventory; BDI) were not. Interestingly, pessimism about the future was the only item on the BDI that emerged as a significant predictor of suicide among depressive symptoms. More recent studies corroborate the strong link between hopelessness and suicidality, over and above other marked symptoms of depression (Beck, Steer, Beck, & Newman, 1993; Beck, Weissman, Lester, & Trexler, 1974; Durant et al., 2006). Available evidence suggests the relationship between hopelessness and

related psychopathology may be exacerbated by high levels of stress (Dixon et al., 1993).

Furthermore, this association may be particularly relevant for African Americans in comparison to White and Hispanic counterparts (Hirsch et al., 2012). Authors posited that this finding may be related to the likelihood of acculturative, economic, and environmental stress, among many other possible contributors of increased hopelessness in the African American community.

Despite compelling evidence of the danger of hopelessness, the construct is relatively understudied as a primary outcome in recent literature. Continued research is needed to determine factors that may contribute to its development as well as those that may serve to reduce its damaging effects among African Americans.

Further limitation of the current literature is found in the lack of empirical study designed to examine hopelessness as a result of perceived discrimination. Fernando (1984) described the experience of ethnic discrimination as one in which the victim is deprived of control of their environment and the event that occurs. Consequently, he posited that those who encounter ethnic discrimination may become hopeless “in the face of recurrent injustices they cannot rectify” (Fernando, 1984). As African Americans remain at risk for personal attacks in the form of discrimination, the construct of hopelessness is particularly relevant to the conceptualization of race-related stress response.

To date, only one study has empirically examined the negative effects of hopelessness associated with perceived discrimination in a sample of ethnic minorities (Polanco-Roman & Miranda, 2013). In a longitudinal study of 143 college students, perceived discrimination was associated with high endorsement of hopelessness. Further, the presence of hopelessness served as a mediating factor between perceived discrimination and depressive symptoms, as well as suicidal ideation. However, authors excluded race/ethnicity from analyses as they reportedly did

not significantly predict hopelessness. Although the use of multiethnic samples is beneficial in providing preliminary information for continued research, additional analyses involving specific demographic information will allow for more specific conclusions for African American adults.

1.5 Social Support: A Potential Buffer

As demonstrated by Polanco-Roman and Miranda (2013), perceived discrimination may be related to the presence of hopelessness amongst ethnic minority individuals. Similarly, we propose that race-related stress is associated with hopelessness in African Americans, though not all African Americans report feelings of hopelessness. It is evident that risk and resiliency factors have significant influence on an individual's vulnerability (Clark et al., 1999; Fernando, 1984). That is, certain factors that impact an individual's vulnerability (or resilience) to stress may serve to attenuate its potentially harmful effects (Lazarus & Folkman, 1984).

Early hopelessness theorists identified the (absence of) social support as an integral factor in the development of hopelessness (Abramson et al., 1989; Brown & Harris, 2012). Other studies (Cohen & Hoberman, 1983; Cohen & McKay, 1984; Cohen & Wills, 1985) corroborate the buffering hypothesis, which suggests that high levels of social support can protect against stress-induced psychopathology. In contrast to Western ideals of individualism, scholars have characterized African American culture as one of interconnectedness (Constantine, Gainor, Ahluwalia, & Berkel, 2003). Given this tendency to see others as interconnected to oneself, social support may be a viable protective factor for African Americans facing discrimination.

However, scholars have noted the problematic nature in operationalizing the construct of social support. Namely, loose identification of what constitutes social support has caused inconsistencies in measurement, study design, and predictive utility (Barrera Jr., Sandler, & Ramsay, 1981; Brookings & Bolton, 1988; Cohen & Hoberman, 1983; Cohen & McKay, 1984;

Cohen & Wills, 1985). The existing empirical research exploring the relation between social support and perceived discrimination is both limited and inconsistent. To illustrate, the buffering hypothesis was not supported in a sample of African American college students in a 2006 study by Prelow and colleagues. However, the authors did find that high levels of perceived discrimination were associated with lower levels of social support (Prelow, Mosher, & Bowman, 2006). Conversely, Seawell and colleagues (2014) observed that social support specifically geared to address racial situations demonstrated a classic buffering effect, though general support did not have the same effect in reducing depressive symptoms over time (Seawell, Cutrona, & Russell, 2014). Findings of this study highlight the importance of social support tailored to meet the needs specific to the stressor, consistent with arguments of previous scholars (Cohen & Hoberman, 1983).

In response to previously noted inconsistencies in the literature, Cohen and Hoberman (1983) also stressed the importance of conceptualizing social support as a multidimensional construct and proposed four dimensions of perceived social support: *Appraisal* support (the perceived availability of persons to confide in), *belonging* support (the perceived availability of a group one can identify and socialize with), *self-esteem* support (the presence of others one believes he compares favorably to), and *tangible* support (perceived availability of material resources).

1.6 Current Study

The existing literature contains numerous accounts of the relation between perceived discrimination and poor mental health outcomes (i.e., Brown & Tylka, 2011; Brown et al., 2000; Chae et al., 2011; Clark et al., 1999; Kessler et al., 1999; Ong et al., 2009; Williams, Neighbors, & Jackson, 2003). However, these studies include several variations in construct

conceptualization and limited sample demographics. In contrast, the current study proves advantageous in the specific measurement of race-related stress through the use of a widely utilized index. Additionally, the inclusion of a community sample of African American adults (a wide demographic with potentially increased risk of experiencing environmental stressors that may be interpreted as perceived discrimination) promotes generalizability of results and implications.

Hopelessness has previously been suggested as a consequence of racism (Bullock & Houston, 1987; Clark et al., 1999; Fernando, 1984; Harrell, 2000). Given its unique distinction as a precursor to depression, suicide, and poor physical health for African Americans (Durant et al., 2006; Hirsch et al., 2012; Joyner, Cline, Simmons, Ferrario, & Mount, 2014; Polanco-Roman & Miranda, 2013; Walker, Alabi, Roberts, & Obasi, 2010), hopelessness is a relatively understudied construct in the current literature. To date, only one empirical study has examined hopelessness as a primary outcome of perceived discrimination in a sample of ethnic minorities (Polanco-Roman & Miranda, 2013), though these findings did not speak directly to the experience of African Americans.

Despite the likely association of perceived discrimination and feelings of hopelessness, not all African Americans who experience race-related stress report feelings of hopelessness. In the current study, multiple dimensions of social support are examined as potential buffers to the negative effects of racism. Consistent with previous conceptualizations of stress, appraisal, and coping, individuals who endorse a positive appraisal of the race-related stressor (i.e., “I have the ability to do something about this experience; I have the resources to cope with this stressor”) are hypothesized to report higher levels of social support, and lower levels of hopelessness. In contrast, those who negatively appraise the race-related stressor (i.e., “There is nothing I can do

about this situation; I am not equipped to deal with this stressor”) are hypothesized to report low levels of social support and high levels of hopelessness.

In the broader literature, social support is frequently cited as a coping mechanism in the face of stress. However, findings on the predictive qualities of social support have been inconsistent. Moreover, specific types of social support that may directly address the needs associated with race-related stress are understudied in African American adults. A multidimensional conceptualization of social support is adopted in the current study, in contrast to much of the previous literature which has often operationalized social support as a unitary construct. Utilizing Cohen and Hoberman’s (1983) conceptualization, three different types of social support are examined the current study: appraisal, belonging and self-esteem social support.³ Further, it is hypothesized that self-esteem social support may be of particular importance in the face of perceived discrimination. Fernando (1984) suggested that perceived racism is not just an attack on one’s culture, but a devaluing of the individual himself: his skin color, mannerisms, and way of life. The presence of persons to favorably compare oneself to may be a necessary source of support to counteract the damaging effects of discrimination.

1.7.1 Specific Aims and Hypotheses

The purpose of the present study is to examine the association between race-related stress and hopelessness in a community sample of African American adults, as well as the potential buffering qualities of specific types of social support (belonging, appraisal, and self-esteem) on that association. Based on the extant literature, it is hypothesized that:

³ Tangible social support was included in the broader study, though omitted from analyses of the current study due to lack of relevance to the proposed hypotheses.

1) Race-related stress will have a positive association with hopelessness such that highly endorsed race-related stress will correlate with highly endorsed hopelessness in African American adults.

1a. Further, social support will have a negative association with hopelessness, such that low perceived social support will correlate with highly endorsed hopelessness.

2) Social support will moderate the relationship between race-related stress and hopelessness, such that high perceived social support will associate with low reported hopelessness for individuals high in race-related stress.

2a. Further, specific types of social support will prove to elicit unique contributions to the buffering model, with self-esteem emerging as the strongest moderator of race-related stress and hopelessness (Clark et al., 1999; Fernando, 1984).

Chapter 2: Methodology

2.1 Participants

The current study is a secondary analysis of previously collected data. The overarching objective of the larger study was to empirically investigate the relationships of psychological, cultural, contextual variables to suicide vulnerability or mental health crisis in a community-based sample of African American adults. Participants were 270 African American males (52.1%) and females (47.9%) age 18-65 years ($M = 36.67$, $SD = 12.52$). Volunteers for the study resided in the southern region of the United States and were recruited via advertisement and word of mouth in various social settings within the community. Approximately 67% of participants indicated that they, their parents, and grandparents were born in the U.S., while 23%

indicated that they or their parents were foreign-born. Additionally, majority of the sample had obtained at least a high school education or some college/special training (30.4%, 27.8% respectively).

2.2 Procedure

The current study was granted full approval by the institutional review board. During data collection, interested parties were screened in a brief phone interview; those who were not 18 years of age, self-identified Black or African American, or experienced recent loss of consciousness due to substance use in the past two weeks were not included in the study. Following consent to participate, volunteers were invited to complete a pencil and paper survey containing a demographic questionnaire as well as a battery of measures used to assess multiple facets of physical and mental well-being. Participants were informed of their right to cease at any time, and the availability of referral services for emotional health, if needed. The questionnaire took approximately 1.5-2 hours to complete, and participants were given \$25 compensation upon completion of the study.

2.3 Measures

2.3.1 Index of Race Related Stress-Brief (IRRS-B). Race-related stress was measured using the IRRS-B (Utsey & Ponterotto, 1996), a 22-item index consisting of three subscales to measure the impact of discrimination at the institutional, cultural, and individual and global levels. The IRRS-B contains statements such as “You were refused an apartment or other housing; you suspect it was because you are Black,” in which participants select a response ranging from 0 (*This has never happened to me*) to 4 (*Event happened and I was extremely upset*), in order to measure the resulting levels of distress that occurred at the time of the event. Scores for the subscale were summed and averaged, with higher scores indicating higher levels

of perceived discrimination. The IRRS-B has demonstrated good reliability ($\alpha = .79$) (Utsey & Ponterotto, 1996) and validity in African American samples (Utsey & Ponterotto, 1996; Utsey, Ponterotto, Reynolds, & Cancelli, 2000). A global measure of race-related stress was utilized in the current study and a reliability of $\alpha = .93$ was obtained.

2.3.2 The Interpersonal Support Evaluation List (ISEL). The ISEL was utilized to measure belonging, appraisal, and self-esteem based social support as conceptualized by Cohen and Hoberman (1983). The scale includes 40 items to gauge the availability of specific types of support (i.e., “I know someone who I see or talk to often with whom I would feel perfectly comfortable talking about problems.”), and contains reverse coded items as well (i.e., “There isn't anyone at school or in town with whom I would feel perfectly comfortable talking about my feelings of loneliness and depression.”). Response options range from 0 (*Definitely false*) to 3 (*Definitely true*) and higher scores reflect increased levels of perceived social support. Subscales of the ISEL have demonstrated satisfactory internal reliability (Appraisal: .77, Belonging: .75, Self-esteem: .60; Cohen & Hoberman, 1983) in predicting depression in non-clinical samples (Brookings & Bolton, 1988). Individual reliability estimates in the current study are comparable to that of the literature (Appraisal: .85, Belonging: .66, Self-Esteem: .65).

2.3.3 The Beck Hopelessness Scale (BHS). Hopelessness was evaluated by the BHS (Beck, Weissman, Lester, & Trexler, 1974), a 20-item measure of true-false response. Items include statements that are designed to capture the feelings associated with hopelessness that have occurred in the past week (i.e. “My future seems dark to me.”). Higher scores indicate increased hopelessness. The BHS has demonstrated validity in measuring suicidal behavior in depressed and non-depressed individuals, as well as strong internal consistency ($\alpha = .93$) (Beck et al., 1974). In the current study, $\alpha = .89$.

2.3.4 Beck Depression Inventory – Second Edition (BDI-II). The BDI-II (Beck, Steer, & Brown, 1996) is a 21-item self-report questionnaire intended to measure the frequency and severity of affective, cognitive, and physical depressive symptoms one has experienced in the past two weeks. Items are measured on a 4-point scale, ranging from 0 to 3 in increasing severity. Higher total scores are indicative of greater depressive symptoms. The BDI-II is among the most widely used indicators of depressive symptoms, and has accrued extensive evidence of reliability and validity in various populations. The BDI-II has been demonstrated as a reliable and valid measure of depressive symptoms in a sample of African American suicide attempters (Joe, Woolley, Brown, Ghahramanlou-Holloway, & Beck, 2008). To account for multicollinearity of hopelessness and depression, a 3-item composite score from the BDI-II was used to account for hallmark symptoms of depression (e.g., sadness, loss of interest, and loss of pleasure) in the current study.

2.4 Analytic Plan

2.4.1 Data Analysis

Hypothesis 1. Simple bivariate correlations were conducted in order to test whether race-related stress would have a positive association with hopelessness in a sample of African American adults. Using SPSS statistical analysis software, total scores for the IRRS-B, BHS, and the ISEL subscales were entered simultaneously into a correlation matrix. A significant positive correlation of race-related stress and hopelessness was anticipated such that ratings of race-related stress would be associated with high reported ratings of hopelessness. Further, it was expected that appraisal, belonging, and self-esteem social support would significantly and negatively correlate with hopelessness such that low perceived social support would be associated with higher ratings of hopelessness.

Hypothesis 2. Three hierarchical multiple regression analyses were conducted to assess main effects and interactive effects of race-related stress and social support on hopelessness. Each regression analysis was conducted using scores obtained from the Global Racism scale of the IRRS-B (Utsey & Ponterotto, 1996), and the appraisal, belonging, and self-esteem social support subscales from the ISEL (Cohen & Hoberman, 1983) as independent variables. Scores obtained from the BHS were analyzed as the dependent variable. For each regression model, the potential influence of age, sex, education level, and depressive symptoms were controlled for in Step 1 (Beck et al., 1974; Broman, Mavaddat, & Hsu, 2000; Sigelman & Welch, 1994). Main effects of race-related stress and each unique type of social support on hopelessness were assessed in Step 2. Finally, Step 3 of each regression model included the appropriate interaction terms (RRS x appraisal; RRS x belonging; RRS x self-esteem) to test the moderating effect of each type of social support on endorsement of hopelessness. As suggested by Baron and Kenny (1986), significance of interaction terms would indicate that the moderator hypothesis is supported, thus providing support for the buffering hypothesis (Cohen & Hoberman, 1983). Should the interaction terms have yielded a significance level of $p \leq .05$, a simple slopes analysis would be conducted to detect the level at which each moderator has a significant effect on the relation of race-related stress and hopelessness. However, because all interaction terms were found to have p -values greater than .05, simple slopes analyses were not conducted.

2.4.2 Sample Size Planning and Statistical Power

Analyses of statistical power and required sample size were conducted using G* Power statistical software (Faul, Erdfelder, Lang, & Buchner, 2007). A power analysis was conducted in order to determine the minimal number of participants required to perform bivariate correlation analyses for the current study. Cohen (1988;1992) suggested an estimated medium

effect size of .30 when conducting bivariate correlation analyses. Using an alpha of .05 and power of 0.80, the projected sample size required with this effect size is 67 participants.

A second power analyses was conducted to determine the number of participants required to perform a multiple linear regression analysis. For this analysis, the maximum amount of predictor variables to be entered in a single multiple regression (including interaction terms) will total 7. Given an estimated medium effect size of 0.15, an alpha of .05, and power of .80 (Cohen, 1988, 1992), the projected sample size required for this analysis is 103 participants. Thus power for the current sample ($N = 270$) exceeds .80.

Chapter 3: Results

3.1 Descriptive Statistics

Means, standard deviations, and intercorrelations for all measures are presented in Table 1. As reported race-related stress increased, so did BHS scores. However, this observed pattern was not statistically significant ($r = .10, p = .105$). Each form of social support, however, was significantly associated with hopelessness in the expected direction, such that higher perceived availability of belonging ($r = -.37, p < .01$), appraisal ($r = -.45, p < .01$) and self-esteem ($r = -.54, p < .01$) social support were associated with lower ratings of hopelessness.

3.2 Test of Main Effects and Moderation

Hierarchical regression analyses were conducted to identify the main and moderating effects of race-related stress and perceived social support on endorsement of hopelessness, while controlling for the potentially confounding influence of additional variables (e.g., age, sex, education level, and depressive symptoms). Three models were tested in order to examine the individual effects of each type of social support within the context of race-related stress. For each model, scale scores were mean-centered to reduce multicollinearity between the main effect and

interaction terms in Models 1-3, individual influences of each type of social support (belonging, appraisal, self-esteem) are examined by main effects in Step 2, followed by the moderating effects in Step 3.

Model 1

The first model was intended to test a main hypothesis that race-related stress and appraisal social support would be significantly associated with hopelessness, and that appraisal social support would moderate the association between race-related stress and hopelessness. A hierarchical regression analysis was conducted with IRRS-B and ISEL (appraisal) scores as the predictor variables, and BHS scores as the criterion variable. As previously indicated, age, sex, education-level, and depressive symptoms were included as covariates in Step 1. Illustrated in Table 2, a significant main effect was found for appraisal social support (but not race-related stress) in Step 2, ($B = -.316, p < .001$). The overall model that included age, sex, education-level, depressive symptoms, IRRS-Brief scores, and perceived appraisal support was significant, $F(7, 247) = 24.78, p < .01$, and accounted for 37% of variance in predicting BHS scores. The cross-product for RRS X appraisal SS, entered in Step 3, was not significant in predicting BHS scores.

Model 2

In the second model (illustrated in Table 3), main and interactive effects of race-related stress and belonging social support were assessed. Covariates were entered in Step 1. Similar to the previous model, no main effect for race-related stress was found. However, a main effect was found for belonging social support in Step 2, ($B = -.184, p = .002$). The overall model that included age, sex, education-level, depressive symptoms, IRRS-Brief scores, and perceived belonging support was significant, $F(7, 247) = 19.01, p < .01$, and accounted for 31% of variance in predicting BHS scores. The interaction of RRS X belonging SS in Step 3 was not significant.

Model 3

The third model (illustrated in Table 4) examined the main and interactive effects of race-related stress and self-esteem social support. Covariates were entered in Step 1 of the regression model. Following the pattern of the previously described models, self-esteem social support demonstrated significant main effects on the outcome variable of hopelessness, ($B = -.384, p < .001$). The model that included age, sex, education-level, depressive symptoms, IRRS-Brief scores, and perceived self-esteem support was significant, $F(6, 247) = 27.66, p < .001$, and accounted for 40% of variance in predicting BHS scores. Both race-related stress and the cross-product of IRRS-B X self-esteem SS did not yield significant effects on reported hopelessness. However, the overall model that included addition of the cross-product of IRRS-B and perceived self-esteem support approached significance $F(7, 246) = 24.351, p = .081$.

Chapter 4: Discussion

A considerable body of literature exists to explore the psychological outcomes associated with perceived discrimination. However, many areas within this scope of research have yet to be explored. Though hopelessness has been identified as a potential consequence of persistent experiences of discrimination (Clark et al., 1999; Fernando, 1984; Harrell, 2000; Polanco-Roman & Miranda, 2013), it has been largely overlooked as a primary outcome in empirical research. Importantly, some studies suggest that hopelessness is the strongest predictor of suicide, above and beyond marked symptoms of depression (Beck, Steer, Kovacs, & Garrison, 1985; Beck et al., 1993; Durant et al., 2006). The current study was designed to examine the hypothesized association between race-related stress and hopelessness, and culturally relevant role of social support in this context.

Despite the persistence of race-based discrimination and other sources of social oppression, African Americans remain at relatively low risk for severe mental health problems relative to other ethnic groups. For example Gibbs (1997) documented the “paradoxical” nature of seemingly low suicide rates among African Americans despite social marginalization and poor access to mental health and healthcare as well as overrepresentation among impoverished persons. This paradox may suggest the presence of psychological protective factors embedded in the cultural practices of persons of African ancestry. Scholars have previously described African American culture as rooted in collectivism and interdependence (Constantine et al., 2003). Thus, the present study was also intended to examine the multidimensional qualities of social support in the face of perceived discrimination. The existing empirical literature on social support contains problematic operationalization and inconsistent findings (Barrera Jr. et al., 1981; Brookings & Bolton, 1988; S. Cohen & Hoberman, 1983; Cohen & McKay, 1984; Cohen & Wills, 1985). Consequently, the current study included examination of self-esteem, belonging, and appraisal dimensions of social support, in effort to explore Cohen & Hoberman’s (1983) assertion that the source of support must match the stressor. The results provide partial support for the hypothesized relationship between race-related stress, hopelessness and social support.

As predicted, appraisal, belonging, and self-esteem social support were each inversely related to reported symptoms of hopelessness such that higher perceived social support was associated with lower self-reports of hopelessness. Of the three dimensions of social support, self-esteem based social support had the strongest association with reported symptoms of hopelessness. Thus, it appears that the perceived availability of persons to which one can compare themselves positively to may be especially important in comparison to more generalized forms of social support, such as having the presence of a social network (e.g.,

belonging support) or persons to talk to about one's problems (appraisal support) in relation to experiencing symptoms of hopelessness.

The current study provided further contribution to the extant literature through examination of the buffering hypothesis for differing types of social support in the face of race-related stress. Despite a non-significant result, the interactive effects of race-related stress and self-esteem social support had the most impact on self-reported symptoms of hopelessness, relative to the two other dimensions of social support. As previous authors have noted, perceived discrimination may ultimately be interpreted as an assault to the individual on the basis of race (Fernando, 1984). Further, such an attack may constitute a "blow" to one's self-esteem, contributing to the development of feelings of hopelessness (Fernando, 1984). It is also necessary to note that self-esteem social support goes beyond the traditional conceptualization of self-esteem (e.g., negative evaluations of self). Cohen and Hoberman (1983) described self-esteem social support as the perceived availability of persons one believes he or she compares favorably to. As previously suggested, persons of African ancestry may see one's own welfare as interconnected with other in-group members. If one feels attacked on the basis of racial group membership, the individual is at risk for negative appraisal of oneself and the collective group. Thus, self-esteem social support may provide dual support for the individual and the collective race group which further bolsters resilience. A positive comparison to others may be more valuable in coping with race-related stress even in the presence of more traditional conceptualizations of social support (e.g., perceived availability of persons to talk to; availability of persons to do things with). However, because this interaction neared but did not reach critical levels of significance, more definitive research is warranted to clarify the seemingly protective nature of social support via self-esteem, and additional factors that may be at play.

Contrary to expectations, there was no direct association for race-related stress and ratings of hopelessness in the current sample of participants. It is possible that other unmeasured buffers accounted for the non-significant association for race-related stress and hopelessness. For example, additional protective mechanisms may arise from spiritual beliefs or church-based networks, as suggested by previous authors (Bierman, 2006; Butler-Barnes et al., 2016; Chatters, Taylor, Jackson, & Lincoln, 2008; Ellison, Musick, & Henderson, 2008). Further, many variables at the individual level (i.e., appraisal processes and attributional style) may also contribute to the development of or lack of hopelessness symptoms when faced with race-related stress (Fernando, 1984; Harrell, 2000). Though such constructs have previously been examined among ethnic minority youth (Greening & Stoppelbein, 2002; Stein, Supple, Huq, Dunbar, & Prinstein, 2016) and in the broader context of discrimination (Eccleston & Major, 2006), thorough analyses of these concepts among African American adults is largely overlooked.

It is also notable that accounting for self-reported depressive symptoms appeared to attenuate the predictive qualities of the remaining variables (e.g., race-related stress, interactions of social support and race-related stress) in relation to self-reported symptoms of hopelessness. In this instance, it is necessary to consider the complex nature of depression and hopelessness at the conceptual level. Previous authors have posited the two constructs as intertwined, such that hopelessness is a core characteristic of depression (Beck et al., 1974). Still, the development of separate scales to measure hopelessness and depression suggests independence of the two constructs. As such, the current analyses included only hallmark symptoms of depression (e.g., sadness, loss of interest or pleasure) as a covariate. Consequently, depressive symptoms accounted for a considerable amount of variance in hopelessness in the current sample.

Alternatively, scholars have also proposed hopelessness as a *precursor* to depression in explanation of the stress, appraisal, and coping process (Brown & Harris, 1978; 2012). Adopting this framework in the context of racism, Fernando (1984) suggested that highly vulnerable persons (e.g., low self-esteem) may become hopeless when experiencing “blows” to self-esteem such as racism. Moreover, symptoms of depression may emerge among those who fail to adequately resolve feelings of hopelessness (e.g., through supportive coping). Using this framework, it is possible that self-reported depression in the current study of African American adults may be intertwined with unresolved feelings of hopelessness.

4.1 Limitations and Future Directions

The current study expanded on the existing literature of psychosocial processes and race-related stress in African Americans. However, there are some limitations that may inform future investigations. For example, the current analysis was designed to focus solely on differing types of social support as potential moderators of the association of race-related stress and hopelessness. Given this approach, it is possible that additional moderating factors may have been overlooked and consequently omitted from the current model of discrimination and hopelessness. Of the examined factors, self-esteem social support was most strongly associated with hopelessness, but had low scale reliability ($\alpha = 0.65$). Nonetheless, the reliability estimate for the current sample was consistent with those obtained by the original authors ($\alpha = 0.60$; Cohen & Hoberman, 1983).

Similar to other existing studies of perceived discrimination (Schulz et al., 2006; Williams et al., 2003), an additional limitation of the current study is its cross-sectional design. This method presents specific challenges in drawing conclusions about causal relationships between race-related stress and psychological outcomes. Nonetheless, a robust literature exists as

evidence of the persistent nature of discrimination and its enduring consequences. Additional studies of longitudinal methodology will allow for increased knowledge of the acute and chronic health implications of race-related stress. Similarly, the type of race-related stressor that one perceives may vary in its psychological consequences. The IRRS-B subscales describe both covert and overt forms of racism at the cultural, individual and institutional level. However, perhaps honing in on one specific domain may provide additional specificity in understanding the consequences of race-related stress. As previously noted, others have discussed the increasing presence of contemporary forms of racism. The use of novel measures exclusively intended to detect modern forms of racism (e.g., the Racial Microaggressions Scale; Torres-Harding, Andrade, & Romero Diaz, 2012) may prove useful in accurately quantifying experiences of race-related stress experienced by African Americans in today's society. The field may benefit from further study to establish strong reliability and validity of measures of contemporary racism—a necessary precursor to accurately assessing its adverse effects on mental health.

4.2 Conclusion

Using a stress, appraisal, and coping framework, preliminary evidence of a negative association between belonging, appraisal, and self-esteem social support and hopelessness was established in the current sample of community members. Additional research that further examines race-related stress, hopelessness, and alternative moderators and/or mediators is warranted. Finally, it appears that self-esteem based social support may have important implications as a potential protective factors in the face of perceived discrimination for African American adults. It is evident that many African Americans face racial and ethnic discrimination on a daily basis. Much more research is needed to understand social and cognitive factors that

buffer or magnify the deleterious effects of racism. Identifying such factors is crucial to understanding psychosocial influences on mental health for African Americans and other marginalized groups.

Chapter 5: References

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Chapter 6: Tables

Table 1. Means, Standard Deviations, and Correlations Among Measured Variables (N = 270)

Variable	1	2	3	4	5	6	7	8	9	M	SD
1. BHS	-	.10	-.37**	-.45**	-.54**	.54**	.10	.01	-.07	5.00	4.60
2. RRS	-	-	-.03	.05	.07	.19**	.13*	.00	.07	37.86	21.21
3. Belonging SS	-	-	-	.48**	.46**	-.39**	-.17**	-.09	.07	6.40	2.58
4. Appraisal SS	-	-	-	-	.44**	-.31**	-.03	-.01	.16*	6.70	3.00
5. Self-esteem SS	-	-	-	-	-	-.43**	-.11 [†]	.03	.14*	5.86	2.10
6. BDI-II	-	-	-	-	-	-	.06 [†]	.11	-.12*	2.08	1.93
7. Age	-	-	-	-	-	-	-	-.04	.13*	36.67	12.52
8. Sex	-	-	-	-	-	-	-	-	.00		
9. Education	-	-	-	-	-	-	-	-	-	4.43	1.50

Note. BHS = Beck Hopelessness Scale. RRS = Race-related stress. SS = Social support. BDI-II = Beck Depression Inventory-II. Sex was coded as 0 = male; 1 = female. Education was coded as 1 = less than 7th grade; 2 = junior high school; 3 = some high school; 4 = high school graduate; 5 = some college or specialized training; 6 = college/university graduate; 7 = graduate/professional training.

* $p < .05$. ** $p < .01$. [†] $p < .10$.

Table 2. Hierarchical Multiple Regression Analysis of Race-Related Stress and Perceived Appraisal Social Support Predicting Self-reported Ratings of Hopelessness

Model		<i>B</i>	β	ΔR^2	<i>p</i>
Step	Variable				
Model 1					
Step 1				.288	.000**
	Age	.020	.054		.289
	Sex	-.378	-.041		.417
	Education	-.064	-.021		.686
	BDI-II	1.028	.432		.000**
Step 2				.088	.000**
	RRS	.006	.028		.595
	Appraisal SS	-.484	-.316		.000**
Step 3				.002	.397
	RRS x Appraisal SS	-.003	-.044		.397

Note. BDI-II = Beck Depression Inventory-II. RRS = race-related stress. SS = social support. Sex was coded as 0 = male; 1 = female. Education was coded as 1 = less than 7th grade; 2 = junior high school; 3 = some high school; 4 = high school graduate; 5 = some college or specialized training; 6 = college/university graduate; 7 = graduate/professional training. **p* < .05. ***p* < .01. †*p* < .10.

Table 3. *Hierarchical Multiple Regression Analysis of Race-Related Stress and Perceived Belonging Social Support Predicting Self-reported Ratings of Hopelessness*

Model		<i>B</i>	β	ΔR^2	<i>p</i>
Step	Variable				
Model 2					
Step 1				.288	.000**
	Age	.014	.037		.505
	Sex	-.507	-.055		.280
	Education	-.024	-.008		.888
	BDI-II	1.088	.457		.000**
Step 2				.028	.007**
	RRS	-.001	.006		.915
	Belonging SS	-.328	-.184		.002**
Step 3				.000	.712
	RRS x Belonging SS	-.002	.054		.712

Note. BDI-II = Beck Depression Inventory-II. RRS = race-related stress. SS = social support. Sex was coded as 0 = male; 1 = female. Education was coded as 1 = less than 7th grade; 2 = junior high school; 3 = some high school; 4 = high school graduate; 5 = some college or specialized training; 6 = college/university graduate; 7 = graduate/professional training. **p* < .05. ***p* < .01. †*p* < .10.

Table 4. *Hierarchical Multiple Regression Analysis of Race-Related Stress and Perceived Self-Esteem Social Support Predicting Self-reported Ratings of Hopelessness*

Model		<i>B</i>	β	ΔR^2	<i>p</i>
Step	Variable				
Model 3					
Step 1				.151	.000**
	Age	.010	.026		.606
	Sex	-.175	-.019		.702
	Education	.057	-.018		.716
	BDI-II	.850	.357		.000**
Step 2				.114	.000**
	RRS	.012	.056		.274
	Self-esteem SS	-.844	-.384		.000**
Step 3				.007	.081 [†]
	RRS x Self-esteem SS	-.009	-.089		.081 [†]

Note. BDI-II = Beck Depression Inventory-II. RRS = race-related stress. SS = social support. Sex was coded as 0 = male; 1 = female. Education was coded as 1 = less than 7th grade; 2 = junior high school; 3 = some high school; 4 = high school graduate; 5 = some college or specialized training; 6 = college/university graduate; 7 = graduate/professional training. **p* < .05. ***p* < .01. [†]*p* < .10.