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Racial Microaggressions, Stress, and Depression in African Americans: Test of a Model

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RACIAL MICROAGGRESSIONS, STRESS, AND DEPRESSION IN AFRICAN
AMERICANS: TEST OF A MODEL

by

Jessica R. Roberts

B.A., Columbia University, 2007

M. A., Southern Illinois University Carbondale, 2009

A Dissertation

Submitted in Partial Fulfillment of the Requirements for the

Doctor of Philosophy Degree

Department of Psychology

in the Graduate School

Southern Illinois University Carbondale

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DISSERTATION APPROVAL

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AMERICANS: TEST OF A MODEL

By

Jessica R. Roberts, M.A.

A Dissertation Submitted in Partial

Fulfillment of the Requirements

for the Degree of

Doctor of Philosophy Degree

in the field of Clinical Psychology

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AN ABSTRACT OF THE DISSERTATION OF

JESSICA R. ROBERTS, for the Doctor of Philosophy degree in CLINICAL PSYCHOLOGY, presented on JUNE 12, 2013, at Southern Illinois University Carbondale.

TITLE: RACIAL MICROAGGRESSIONS, STRESS, AND DEPRESSION IN AFRICAN AMERICANS: TEST OF A MODEL.

MAJOR PROFESSOR: Dr. Kathleen Chwalisz

The purpose of this study was to examine the interrelationships between daily hassle stressors (i.e., racial microaggressions and college hassle stress), racial identity, perceived stress, and depression among Black/African American college students. It was hypothesized that perceived stress would partially mediate the relationships between daily hassle stressors and depression. Racial identity was hypothesized to moderate the relationship between racial microaggressions and perceived stress. Data were analyzed from a sample of 142 Black/African American college students from a medium sized university in the Midwest. Utilizing EQS, a path analysis was conducted to test the hypothesized model. Findings from the analysis revealed that perceived stress partially mediated the relationship between college hassle stress and depression. Findings also revealed that perceived stress fully mediated the relationship between racial microaggressions and depression. Interestingly, a significant negative relationship was found between racial microaggressions and perceived stress. Racial identity was not a significant moderator in this study. Findings are indicative that Black/African American college students experience race-related stress differently than general daily hassles. Implications for future research, clinical interventions, and social justice initiatives are discussed.

DEDICATION

I dedicate this dissertation to some very special people in my life, as without them I would not have completed my doctoral degree. They have supported me from the beginning, long before graduate school, when becoming a psychologist was just an aspiration.

To Mom, Jill, and the rest of the Summers, Roberts, and Allen families who have been there throughout this journey; your love and support has been indescribable. Also, to my friends, Audra, Angela, Rabin, Cherita, Chastity, Robert, Shelly, and Adrienne; I love you all more than you will ever know. Thank you for always standing by me, rejoicing in my successes and comforting me through the many difficult times. At times, I think you all were more excited about this degree than I.

This dissertation is also dedicated to three women who had a significant enormous impact on my life. Stella Allen, Earlene Allen, and Ellen Berger, may you rest in peace. I thank God for the time I had with each of you.

"I Am Because We Are." – African Proverb

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CHAPTER I

INTRODUCTION

Major depressive disorder (MDD) is a common psychological illness estimated to affect

up to 25% of the United States' population (Kessler et al., 2005). The disorder is considered to

be one of the most burdensome diseases in the world (Kessler & Wang, 2009). Depressive

symptomatology has been associated with numerous negative health outcomes and problems (see

Gotlib & Hammen, 2009). Researchers continue to study psychosocial variables that could be

related to the manifestation and prevalence of MDD and depressive symptoms.

Although MDD is a widespread disorder, it is not a universal phenomenon, and

researchers have investigated its antecedents, manifestations, and effects in diverse populations.

Researchers have demonstrated that depressive symptoms significantly impact African

Americans, such that, the lifetime prevalence of MDD in African Americans is estimated at

10.4% (Williams et al., 2007). In the US, African Americans experience social and cultural

phenomena related to the onset and maintenance of depressive symptomatology. This

dissertation was an examination, with African American college students, of several

psychosocial variables associated with depression including, stress, racial identity, and racial

discrimination.

Stress has been implicated in numerous negative physical and mental health outcomes,

including depression in particular (e.g., Johnson and Bornstein, 1991). Theorists have developed

three major conceptualizations of stress, two of which were specifically addressed in this

dissertation, because of their association to mental health outcomes. The life events model

includes external stressors represented by major life events and daily hassles. Researchers found

that daily hassles were a better predictor of mental health status than major life events (DeLongis

et al., 1982; Kanner et al., 1981). Researchers have also studied hassles that are more context dependent, and the area of college hassles continues to grow. College hassles represents an area to expand, given that only a few researchers thus far have conducted studies to explore the phenomenon in African Americans college students (e.g., Banks, 2010; Watkins et al., 2007). The other conceptualization psychological stress is the interactive theory, and arguably the most widely utilized interactive model is the transactional model of stress (Lazarus & Folkman, 1984). In the transactional model of stress, it is theorized that individuals only experience stress when they appraise a situation as harmful and beyond their resources with which to cope (Lazarus & Folkman, 1984). This transactional type of stress is often referred to as perceived stress. Future researchers should continue to investigate the types of stress that are implicated in psychological outcomes and gain a better understanding of how they work independently and in conjunction with one another.

One would be remiss to study depression in African Americans without considering the effects of race. In this study, race was considered from both internal (i.e., racial identity) and external (i.e., racism, racial discrimination) perspectives. Racial identity was described as a salient and defining characteristic of people of African descent in the United States (Helms, 1995). Initial conceptualizations of racial identity involved stage models to explain the process African Americans experience, as they develop a health group identity (e.g., Cross, 1991; Helms, 1995; Parham, 1989). Sellers (1993) posited that racial identity is a multidimensional phenomenon which focuses on how salience, public and private views, and ideology impacts one's group identity. Researchers have demonstrated that racial identity is a significant component of psychological well-being. Racial identity was related to self-esteem, depression, and life satisfaction (Rowley et al., 1998; Settles et al., 2010; Yapp et al., 2011). Racial identity

protects individuals against poor mental health (e.g., Neblett, et al., 2004), and future research should continue to investigate its role in mental health outcomes.

Racism and discrimination in the United States have become more covert, which led researchers to explore the impact of subtle forms of discrimination (McConahay, 1986). African Americans were found to be at an increased risk to experiencing racial discrimination and to report more racial discrimination than any other group (Kessler et al., 2005). Racial discrimination can negatively impact mental health status and has been associated with life satisfaction, anxiety, and depression (Broman, 1997; Brown et al., 2000; Klonoff et al., 1999). Researchers have also studied racism-related stressors (e.g., racial microaggressions) and their affect on African American mental health (e.g., Sue et al., 2008; Utsey, 1996). Racial microaggressions are experiences of race-related stress that are brief and daily verbal, behavioral, or environmental indignities which can be intentional or unintentional and that communicate hostile, derogatory insults (Sue et al., 2007).

It is important to examine the aforementioned variables in order to gain greater understanding of the manifestation of depressive symptoms. This future research could provide greater understanding of how stressors (race related and other) can impact the level of stress Black/African American college students perceive in their lives, as well as their depressive symptoms. The investigation may also provide necessary information to improve treatment approaches to depression for Black/African American college students, as well as information to assist social justice initiatives.

Researchers have begun to examine the interrelatedness of racial discrimination, racial identity, stress, and depression, but the relationships of the aforementioned variables have not been examined as a comprehensive psychological process. This study was an effort to develop

and test a comprehensive model that describes the interrelatedness of racial discrimination, racial identity, and stress on depression. Path analysis was utilized to test a sophisticated model that is more parsimonious, rather than examine all possible relationships between the variables. It was hypothesized that the model will fit better than previous more simplistic relations that have been investigated.

CHAPTER II

LITERATURE REVIEW

The following chapter includes a description of the primary constructs of interest for the present study. The review includes several of the psychosocial variables that have been demonstrated to impact the onset and maintenance of depressive symptoms in Black/African American college students. The review of constructs includes depression, stress, racial identity, and racial discrimination. This chapter also includes a discussion of the interrelatedness of the variables and outlines the model proposed for the current study.

Depression

Major Depressive Disorder (MDD) is a common psychological illness that affects many individuals (Gotlib & Hammen, 2009). Researchers have estimated that two to four percent of adults in the United States meet diagnostic criteria for the disorder as defined in the Diagnostic and Statistical Manual - Fourth Edition (DSM-IV; American Psychiatric Association, 2000; WHO, 2000). For example, symptoms of a major depressive episode include experiencing sadness or loss of interest in pleasurable activities, changes in sleeping patterns, and appetite, irritability, fatigue, suicidal ideation, and feelings of hopelessness and worthlessness that last for two or more consecutive weeks (American Psychiatric Association, 2000). Researchers have determined that the 12 month prevalence rate for adults in the United States is 6.6% (Kessler et al., 2003). Lifetime prevalence rates of MDD range from six to 25 percent (Kessler et al., 2005; Weissman, Livingston, Leaf, Florio & Holzer, 1991; Lewinsohn, Rohde, Seeley & Fischer, 1991). Depression can affect many aspects of an individual's life and can significantly impair functioning. The disorder was ranked as the most burdensome disease in the world and was considered to be the fourth leading cause of disability (Kessler & Wang, 2009).

Researchers have linked depression with numerous negative health outcomes and problems (e.g., Gotlib & Hammen, 2009; Murray & Lopez, 1996; Ustun, Ayuso-Mateos, Chatterji, Mathers & Murray, 2004). Individuals who experience MDD often face role impairments that impact their functioning at work, home, school, and in their interpersonal relationships (American Psychiatric Association, 2000, Kessler et al., 2006). It should also be noted that, sub-clinical levels of depression, for which diagnostic criteria for MDD is not met, can also cause significant functional impairment (Gotlib & Hammen, 2009). When examining the impact of depressive symptoms, it is important to consider those individuals who meet diagnostic criteria and those who do not, and it is important to recognize that the symptoms can lead to significant impairment in numerous life domains.

Etiology of Depression

Researchers have identified several biological, psychological, social, and environmental antecedents related to the onset of depressive symptomatology. Biological pathways include genes, neurobiological mechanisms, and dysfunction among brain structures (e.g., Davidson, Pizzagalli, & Nitschke, 2009; Levinson, 2009; Thase, 2009). Psychosocial risk factors of depressive symptoms include the experience of negative life events, personality characteristics, and cognitive styles (e.g., Joormann, 2009; Monroe, Slavich & Georigades, 2009).

Theorists and researchers, who have examined biological correlates of MDD, have developed numerous models that describe the onset of the disorder. Genes have become one area that has garnered continued research efforts. Researchers conducted studies involving twins and have determined that genes account for 40% to 50% of the vulnerability found in MDD (Levinson, 2009; Sullivan et al., 2000). The researchers concluded that it is likely that many genes contribute to MDD. The most widely studied gene related to depression is the SLC6A4 (5-

HTT), which encodes with serotonergic transporters to affect the reuptake of serotonin back into the presynaptic cell (Davidson, Pizzagalli, & Nitschke, 2009). Researchers demonstrated that the Adenine/guanine (A/G) SWP (rs25531) gene reduced serotonergic activity similarly, to the 5-HTTLPR gene (Hu et al., 2006). The gene was found to be present in 10% of Europeans and 24% of African Americans. It remains unclear how exactly how depression is passed on through genes, but researchers theorize that genes do have a role in the onset of MDD (Davidson, Pizzagalli, & Nitschke, 2009).

Another gene that has been found to impact MDD is the 5-HTTLPR gene. Researchers have examined the allele genotypes (i.e., the long (L) and short (S)) of the gene. The researchers have demonstrated that the S alleles create less transporter molecules which lead to lower levels of serotonin (Lesch et al., 1996). At this time, more research is needed because the associations between L/S alleles and MDD diagnosis have not been found, which suggests that genes alone do not lead to the onset of MDD. Theorists posited that gene - environment interactions have impacts on the onset and maintenance of the disorder and could explain the absence of the direct relationship between genes and the disorder. Theorists suggested that an interaction was found to occur when stress was involved. In a study that involved 847 participants aged 3-26, researchers found that individuals with S allele were more likely (i.e., 33% to 17%) to experience MDD following stressful life events (Caspi et al., 2003). There has been some inconsistency in the replicated studies that addressed this phenomenon, though a majority of research has supported the hypothesis, that an interaction between genes and the environment have a role in the onset and maintenance of depression (Levinson, 2009). The genetic susceptibility to depressive symptoms and MDD remains unclear. No direct linkages have been identified thus

far, but researchers continue to investigate possible explanations for the onset and maintenance of MDD.

Researchers have also examined neurobiological functions, impaired brain structures, and their association with depressive symptoms. One long standing and well-established model of depression is related to the notion that the disorder occurs because of a chemical imbalance (France, Lysaker, & Robinson, 2007). Theorists who have developed and evaluated the monoamine theory of depression argue the MDD occurs because dysregulated monoamine neurotransmitters (i.e., serotonin, dopamine, or norepinephrine). Researchers noted the effectiveness of antidepressant medication as support for the monoamine theory, because most antidepressant medications increase the level of monoamines in the brain. However, the monoamine theory has also been criticized, because it is unable to provide a complete understanding of MDD. Many individuals do not respond to antidepressant medication which indicates that monoamine dysregulation may only be one component of MDD (France et al., 2007). Theorists have also proposed that hormone dysregulation in the HPA axis contributes to MDD, noting that elevated cortisol levels have been related to the disorder (Porter & Gallagher, 2006).

Abnormalities in brain structures have also been identified by theorists as potential factors in the etiology of depression. Comparisons of magnetic resonance imaging (MRI) volumetric images of depressed and non depressed individuals have been utilized to explore structural differences. Researchers have found that aspects of the limbic system, which includes the amygdale, hippocampus, and anterior cingulated cortex, were altered in individuals with MDD (Davidson et al., 2002). Theorists have argued that these structures likely have a significant role in depression, because the limbic system is involved in the processing and the

experience of emotions. Thus far, the findings have been inconsistent in regard to the amygdala, as some researchers have found no differences, whereas others have found decreased volume with each subsequent depressive episode (Gotlib & Hamilton, 2008). A meta-analysis of 143 studies on brain structural changes with people diagnosed with MDD compared to controls, revealed lateral ventricle enlargements, increased cerebrospinal fluid volume, smaller basil ganglia, thalamus, hippocampus, frontal lobe, orbitiofrontal cortex, and gyrus rectus volumes in the individuals with MDD (Kempton et al., 2011).

Researchers have also conducted extensive work to understand the cognitive correlates of depressive symptomatolgy and MDD. The cognitive antecedents are particularly relevant to this study. Thus far, researchers have investigated whether cognitive antecedents function as vulnerability or aid resilience. Theorists and researchers have considered the impact that thoughts, inferences, attitudes, and interpretations have on the onset, maintenance, and prevention of MDD and depressed affect. Theorists developed theories to explain role of cognitions in the development or resistance to depression. These theories include the hopelessness model of depression developed by Abramson and colleagues (1989) and the schema theory of depression derived by Beck in 1976.

Abramson and colleagues (1989) based their hopelessness model on Seligman's 1975 theory of learned helplessness. Seligman theorized that when an individual felt as if he or she were not in control of life experiences, that the individual would begin to believe that he or she would have no control over outcomes. Seligman theorized that one's perception of having a lack of control over life, could lead to a depressive episode. Abramson and colleagues argued that hopelessness can lead to depression if desired outcomes do not occur, or if the individual begins to assume that negative outcomes are likely to occur in any given situation. The hopelessness

theory provides a cognitive explanation of depressive symptoms and MDD because individuals are believed to attribute negative life events to stable or global causes. These types of negative attributions could lead to lowered levels of self-esteem and feelings of worthlessness.

In his theory, Beck (1976) posited that schemas can lead individuals to have biased perceptions or interpretations of environmental stimuli. Beck argued that biased perceptions could lead an individual's attention only directed to stimuli that are congruent with their schema. Beck argued that depressed individuals have a bias for processing and attending to information that is negative. Depressed individuals also interpret neutral or ambiguous stimuli as negative. Their biased processing can function beyond their depressive episode and create vulnerability for the onset and recurrence of depression. When stressful life events occur, individuals with vulnerability of attending to negative stimuli can create dysfunctional schemas. This process creates a cycle of negative thinking and biased processing. Beck theorized that depressed individuals have a cognitive triad of distorted perceptions about themselves, their world, and their future.

Depression in African Americans

Research on depression has not been limited to the prevalence, impacts, and concomitants of the disorder. Researchers have also investigated disparities in the diagnosis, prevalence, and experience of various racial and ethnic groups. There has been much debate in regard to the rates of depression in African Americans and other groups, in contrast to that of European Americans, as some estimates of prevalence rates among African Americans are equivalent, whereas others have been lower (Gotlib & Hammen, 2009). Williams and colleagues (2007) analyzed data from the National Study on American Life, which contained 3570 African American participants and 1621 Blacks of Caribbean descent. The sample was considered the

largest United States study of mental health in the Black community (Jackson et al., 2004). The

African American participants were nationally representative of households in 48 states. The

Caribbean Black participants were selected from core sampling areas and other metropolitan

areas. All participants were age 18 or older; see Jackson et al, 2004 for a full review of the

sampling methods and description of the sample. The authors found a lifetime prevalence rate of

10.4% for MDD in African Americans and 12.9% for Caribbean Blacks, suggesting that the

disorder has a significant impact on the racial/ethnic group.

In a related systematic review of the literature, Simpson, Krishnan, Kunik, and Ruiz

(2007) investigated the possibility of racial/ethnic disparities in the diagnosis and treatment of

MDD, as research findings were inconsistent in regard to prevalence rates across groups. The

authors argued that inequities in diagnosis and treatment could lead to poor mental health

outcomes for ethnic minorities. After the authors conducted a search of the literature via

MEDLINE, the researchers found 14 studies that met their inclusion criteria. The included

studies were population based and utilized survey methodology or large administrative databases

such as Medicare. The authors also included prospective studies that examined the treatment

and/or diagnosis of depression and stratified by race/ethnicity. The studies were in English and

compared Caucasians to African Americans and/or Hispanic participants. The researchers

concluded that the results remained mixed, as some studies indicated significant racial/ethnic

differences in the frequency and diagnosis of depression and others did not (Simpson, et al.,

2007).

In a similar line of research, Stockdale, Lagomasino, Siddique, McGuire, and Miranda

(2008) reviewed data from the National Ambulatory Medical Care Study. The researchers

examined trends from the years 1995 to 2005 of diagnosis and treatment of depression and

anxiety through a representative sample of office-based physician's visits. Stockdale and colleagues concluded that African American patients were less likely to be diagnosed during psychiatric visits, when they do in fact have the disorder. The authors also found additional disparities in diagnosis, treatment, counseling referrals, and antidepressant use in primary care visits. The authors found that African Americans had lower odds of being diagnosed with anxiety or depression than White patients. African Americans also had lower odds of receiving counseling referrals and prescriptions for antidepressants. They also conducted sensitivity analyses, which took the number of office visits, and insurance status into account. The authors determined that the disparities remained after the sensitivity analyses as well. Stockdale and colleagues (2008) noted that the disparities could demonstrate differential recognition of disorder manifestation in ethnic minority groups. The authors noted several limitations in the study (i.e., small sample size of African Americans, and that physicians and office staff determined the patient race).

Summary and Critique: Depression

Major depressive disorder remains one of the most common psychological illnesses in the United States and is considered to be the most burdensome disease in the world (Gotlib & Hammen, 2009). Depressive symptoms can negatively impact many aspects of functioning (APA, 2000). Estimates of the lifetime prevalence rate of the disorder have ranged anywhere from six to 25% (Kessler et al, 2005). Researchers have estimated a lifetime prevalence rate for MDD of 10.4% for African Americans and 12.9% of Caribbean Blacks, which suggested that the disorder can have significant impacts on Black people (Williams et al., 2007). Researchers continue to debate whether or not there are racial/ethnic disparities in prevalence and diagnosis of MDD.

Researchers have found biological, psychological, social, and environmental antecedents related to the onset of depressive symptoms. Biological pathways include genes, neurobiological mechanisms, and dysfunction among brain structures (e.g., Davidson, Pizzagalli, & Nitschke, 2009; Levinson, 2009; Thase, 2009). Researchers conducted twin studies and have suggested that genes account for up to 50% of the vulnerability of MDD (Levinson, 2009). Researchers have also suggested that the S allele of the 5-HTTLPR serotonin transporter gene can interact with an individual's environment to increase the likelihood of experiencing depressive symptoms, when faced with stressful life events (Caspi et al, 2003). Researchers of the well-established monoamine theory of depression have found that dysregulated monoamines (i.e., serotonin, dopamine, and norepinephrine) create a chemical imbalance that can lead to MDD.

Psychosocial risk factors of depressive symptoms include the experiences of negative life events, personality characteristics, and cognitive styles (e.g., Joormann, 2009; Monroe, Slavich & Georigades, 2009). The cognitive correlates of depressive symptoms are of particular note for this study.. Abramson and colleagues (1989) posited that hopelessness can lead to depression if an individual's desired outcomes do not occur. Beck (1976) argued that biased cognitive schemas about the self, the world, and the future could lead to symptoms of depression.

Research inquiry on depression has generated a large amount of information, but questions remain in regard to the process of the disorder and related symptoms in the African American community. Although the research is somewhat mixed, evidence is mounting that there are disparities in depressive symptoms and diagnosis experienced by African Americans. African Americans are less likely to be diagnosed with MDD even when that is the appropriate diagnosis, and they are less likely to receive appropriate treatment (Simpson et al., 2007; Stockdale et al., 2008). There remains a paucity of research designed to investigate the

sociocultural correlates that could provide information about the prevalence rates, diagnosis, and treatment utilization among African Americans. The disparities determined by researchers could be impacting many factors of the lives of African Americans. It remains necessary to examine the variables that likely impact the manifestation, prevalence, diagnosis, and treatment of depressive symptoms in African Americans to increase knowledge and improve future treatment and diagnosis.

Stress

Stress is a broad term that was first utilized in the 14th century to describe hardship and adversity (Lumsden, 1981). Modern definitions of stress reflect a universal human and animal phenomenon that results in an intense and distressing experience that can have a significant impact on behavior (Lazarus, 1990). Reactions to stress can be expressed in several ways including disturbed affect, motor behaviors, changes in cognitive functioning, and physiological changes.

Stress has been characterized in terms of three broad conceptualizations. The first was derived from an engineering perspective that denoted the relationship between stress and environmental stimuli. This conceptualization of stress was related to Canon's (1932) work on homeostasis. In this framework, stress was viewed as a person's physiological response to environmental stimuli, like physical stress might impact a bridge or other physical structure. Selye (1955) derived his General Adaption Syndrome model from this perspective. The theory involved three distinct biological stages of response to a stressor (i.e., Alarm Reaction, the Stage of Resistance, and the Stage of Exhaustion). The Alarm Reaction (AR) stage involves an individual's immediate response to a stressor, in which the "fight or flight" system is activated. Stress hormones such as cortisol, adrenaline, and noradrenaline are released during the AR stage.

When stress hormones are released, the effectiveness of the immune system can decrease, leading individuals to become vulnerable to illness. During the Stage of Resistance (SR), if the stressor is resolved, homeostasis begins to restore the body. During the SR stage, if the stressor is unresolved, the body remains in a state of arousal and begins to adapt to the stressor. In the Stage of Exhaustion (SE), the stressor has become chronic and led the body's resistance to decline. The theorist argued that during SE, individuals experience overload, burnout, and adrenal fatigue. The immune system is damaged and one's ability to resist disease is eliminated.

The remaining conceptualizations include discussion of environmental responses to stress, as well as interactions between the stimulus and organism. The life events approach was the second major conceptualization of stress (Holmes & Rahe, 1967). Life events theorists posited that stress was a result of environmental stimuli and the various events that occur in a person's life have an additive effect on one's overall level of stress. Initially the theorists believed that stress was caused by major life events, but theorists later expanded their work to include the negative effect of minor daily occurrences called daily hassles (Kanner et al., 1981). The third major conceptualization of stress involved an interactive model, in which stress is seen as an interaction between the stimulus and the organism. People were believed to have individual vulnerabilities and differential responses to stimuli. The most widely known theory that was derived from this conceptualization of stress, was the transactional model created by Lazarus and colleagues (1984). The life events approach, specifically, daily hassles and interactive transactional model are of interest in this study, as they have been shown to be significant factors associated with depressive symptoms and psychological distress.

Life Events Stress

The life events conceptualization of stress evolved out of the earlier notions of stress and strain as proposed in the engineering models, providing a focus on the sources of stress and strain experienced by individuals (Holmes & Rahe, 1967). The life events conceptualization of stress has been measured in two manners; major life events and daily hassles. *Major life events* are stressors that are major objective external events which can be either positive or negative and require some adaptation, such as marriage, divorce, birth of a child, death, and unemployment. The major life events perspective has focused on life changes that could lead to stress. Theorists posited that because life changes function as stressors that often require adaptational struggles, experiencing those major life changes could have negative impacts on psychological well-being. The antecedent or stimulus is the major life event that can impact an individual's well-being, as the event requires adaptational demands that could lead to the consequence of stress. The life events conceptualization has been criticized, because it does not take into account the impact an individual can have on the events in his or her life, as people can have some choice in their lives (Altman, 1976).

Later researchers in the life events stress domain considered other types of event-oriented stressors. The daily hassles perspective of stress was created as compliment to the major life events conceptualization, as it was focused on the impact of other event stressors in the individual's environment. *Daily hassles* were defined as irritating or distressing transactions with the environment that occur frequently (Kanner, Coyne, Schaefer, & Lazarus, 1981). Daily hassles can be chronic, rare, or situationally determined. Kanner and colleagues posited that daily hassles could become negative when they occurred more frequently or were more severe. Examples of daily hassles include, experiencing traffic on the way to work, misplacing items, or

having to stand in long lines at the grocery store. In conjunction with daily hassles, researchers also theorized that there were daily events, *uplifts* that would have positive effects on functioning. Researchers who investigated daily hassles suggested that over time, these events can lead to significant distress and psychological impairment. Researchers have also explored the effects of life stress on physical health, but this dissertation is focused on the impact of stress on mental health.

One of the first studies conducted to assess the impact of daily hassles on mental health was conducted by Kanner and colleagues in 1981. The researchers aimed to examine daily hassles, major life events, and their ability to predict psychological symptoms. The researchers also investigated whether or not daily hassles would have an independent relationship with psychological symptoms regardless of the presence or absence of major life events. The study included 100 participants ranging in age from 45 to 64, who were primarily White. The participants were part of a larger sample gathered by the California State Health department in 1965 and 1974. The participants completed measures of daily hassles, uplifts, major life events, morale, and health status. The researchers concluded that daily hassles were a better predictor of psychological symptoms than major life events. The researchers' second hypothesis was confirmed as their results demonstrated that daily hassles contribute to psychological symptoms independently of major life events.

Researchers have also examined the relationships between daily hassle stress, psychopathology, and other health outcomes. In a related study of daily hassles stress, DeLongis, Coyne, Dakof, Folkman, and Lazarus (1982) examined the relationships of major life events and daily hassles have with health status. The researchers utilized the same data set as Kanner and colleagues (1981). The participants completed measures of daily hassles, uplifts,

major life events, and heath status. The researchers concluded that experiencing a high

frequency of daily hassles was related to poor overall health status. Daily hassles were revealed

to be a better predictor of health status than major life events. This study was pivotal as it was

one of the first to demonstrate that daily hassles were a better predictor of health and

psychological well-being than major life events.

     Johnson and Bornstein (1991) conducted a longitudinal study to investigate the effects of

daily hassles on mental health status for individuals with prior mental health diagnoses. Sixty-

eight college undergraduates (39 female) completed the survey during Time 1 and one month

later, 45 people (26 female) participated in Time 2. The authors edited the Daily Hassles Scale

(Kanner, Coyne, Schaefer, & Lazarus, 1981), for this study, by removing those items that were

confounded with health status. The participants also completed the Personality Diagnostic

Questionnaire-Revised (Hyler et al., 1988), the Hopkins Symptom Checklist (Derogatis, Lipman,

& Covi, 1973), and the Multiple Affect Adjective Checklist (Zuckerman & Lubin, 1965). The

researchers measured the severity and frequency of daily hassles that occurred during the

previous months. Johnson and Bornstein found that even after controlling for prior mental health

status, both the number and severity of the daily hassles predicted dysphoric affect and

psychopathology scores on the SCL-90. The researchers concluded that the severity of the daily

hassles was a better predictor of psychological well-being than the number of hassles. The

findings of this study contradicted those of Kanner (1981) that suggested the number of hassles

is the best predictor of well-being and DeLongis and colleagues (1982) who found the severity

and frequency of the daily hassles to be equally predictive of mental health status.

     Building upon the general research on daily hassles, researchers have also investigated

hassles related to specific life circumstances. One growing area of specific hassles research

involves hassles associated with attending college, as college students have been shown to be particularly susceptible to stress (D'Zurilla & Sheedy, 1991). College students have to adjust to new environments as well as an increased level of academic rigor. Researchers have conceptualized college student stress within the Lazarus and Folkman (1984), model as it has been demonstrated that stress occurs because of an interaction between the stimulus and the individual's perception of the stimulus and his or her resources to cope (Romano, 1992). It is important to take the context of the individual's life into account when examining the manner in which stressors impact their lives. College students experience stressors that are directly related to the college experience and should be of note when examining stress among that population.

Ross, Niebling, and Heckert (1999) conducted an empirical study to gain a better understanding of the types of stressors that college students experience. They aimed to determine which sources of stress were most prevalent among college students. The researchers administered their Student Stress Survey to 100 students (80 female). The Student Stress Survey consisted of 40 items that were taken from the Student Stress Scale (Insel & Roth, 1985) and the Taylor Manifest Anxiety Scale (Taylor, 1953). The items were categorized into four types of stressors: interpersonal sources, intrapersonal sources, academic sources, and environmental sources of stress. The researchers noted that each category of stressors contained items that represented both major life events and daily hassles.

Ross and colleagues (1999) calculated the distribution of the stressors and concluded that students experienced an average of 16.5 stressors. The top five stressors were changes in sleeping habits, vacations/breaks, changes in eating habits, increased work load, and new responsibilities. Intrapersonal stressors related to changes in bodily functioning such as eating and sleeping habits accounted for 38% of the total stressors. Environmental stressors accounted

for 28% of the stressors, while 19% were represented by interpersonal problems. The authors concluded that 15% of the stressors were related to academics. The researchers also noted that overall, 81% of all the stressors could be classified as daily hassles. The researchers did not measure the degree to which the stressors impacted the students functioning, but they were one of the first groups to identify the types of stressors that college students frequently experience.

Watkins, Green, Goodson, and Guidry (2007) conducted a qualitative study to examine the stressful life events specifically experienced by Black male college students. The researchers were interested in gathering information about how life events contribute to the physical health and mental health statuses of the men. The researchers conducted five focus groups that lasted approximately 90 minutes each. The focus groups were conducted at one historically Black college and university (HBCU) and one predominately White institution (PWI). The participants were recruited via email and 46 Black men aged 18 to 26 completed the groups. The researchers utilized a content analysis approach, as described by Morgan & Krueger (1998), to analyze their data.

Watkins and colleagues (2007) found 19 total themes across the groups. The researchers noted findings similar to Ross and colleagues (1999), as the students reported experiencing stressors related to money, class, and the opposite sex. There were also some differences in report by type of school. The students from the HBCU reported experiencing major stressors related to their image and lack of resources. Stressors related to culture, racism, and discrimination were discussed by the students at the PWI. The participants reported experiencing stressors related to feeling accepted and "fitting in," racism/discrimination, and lack of social support in addition to the traditional college stressors. Interestingly, the participants across both school settings indicated that they did not allow their stressors to

negatively impact their mental health status. Although the authors did not directly measure the impact of the stressors, the participants believed that the stressors did not have negative impacts on their psychological well-being.

Transactional Model of Stress

A widely used model that emerged from the interactive conceptualization of stress was the transactional model of stress. Lazarus (1990) theorized a cognitive relational view of stress involving an individual's appraisal of events. Psychological stress was described as the relationship between a person and the environment that is appraised by the person as exceeding resources and threatening to his or her well-being (Lazarus & Folkman, 1984). The transactional model views the person-environment relationship as reciprocal and bidirectional. Lazarus and Folkman (1984) expanded on the earlier conceptualization of the stress transaction by articulating two appraisal processes involved in an individual's experience of a potentially stressful event. The *primary appraisal* is whether an event represents harm, threat, or challenge. If the primary appraisal is not a stress oriented one, then the stress-related response to the event stops there. After a stress-oriented primary appraisal occurs, then the individual is thought to engage in a *secondary appraisal* process in which the person determines whether the event exceeds his or her coping resources. Stress occurs when an individual interprets or appraises an event as both a harm/threat/challenge *and* exceeding his or her coping resources (Lazarus & Folkman, 1984). This transactional type of stress is often referred to as perceived stress.

Summary and Critique: Stress

Stress is a phenomenon that can result in significant negative psychological outcomes (Lazarus, 1966). Stress has been conceptualized into three broad categories including objective stress, such as major and minor life events, physiological responses to environmental stimuli, and

the interaction of a stressful stimulus and the individual. The life events approach and interactive models are the most relevant to this dissertation.

The life events model encompasses the measurement of major life events and daily hassles. Initially, researchers believed that major life events had the most significant impact on psychological well-being, but a series of empirical studies demonstrated that daily hassle stress was a better predictor of mental health outcomes than major life events (Kanner et al., 1981, DeLongis et al., 1982). Daily hassles were also shown to significantly impact mental health status independently of major life events (De Longis, et al., 1982). Research has remained mixed in establishing whether the frequency or the severity of daily hassles is more significant in the onset and maintenance of psychological illness and impaired well-being.

Researchers have examined specific types of major life events and daily hassles. They have also examined how particular types of stressors function in specific populations. Researchers have begun to examine the hassles experienced by college students, as college is a time that is described as full of changes that can require a great deal of adaptation (D'Zurilla & Sheedy, 1991). Research suggests that college students experience unique stressors related to financial responsibilities, academics, and changes to their functioning such as eating and sleeping (Ross et al., 1999). Researchers have also begun to examine life events that are unique to particular cultural groups (e.g., Watkins et al, 2007). Researchers of this line of work have found that African American students experienced some stressors that were unique to their group in contrast to the standard daily hassles experienced by White students (Watkins, Green, Goodson, & Guidry 2007).

The transactional model of stress (Lazarus & Folkman, 1984) has been widely used as a method for understanding stress. This model takes into account the interaction individuals can

have with their environment. Rather than the mere presence of a stressor as in the life events perspective, theorists who developed the transactional model argued that stress does not occur unless the individual appraises the stressor as challenging or threatening. If the event is appraised as stress-inducing the individual must also view the stressor as beyond his or her resources to cope in order to experience negative effects. It will remain important to measure the participants' perceptions of the stressor in order to gain further understanding of how their appraisal of the stimulus may impact one's psychological functioning.

Researchers' empirical inquiry into the effects of stress has made great strides in the understanding of stress and health, but there appears to be a decline in the examination of stress as it relates to psychological well-being. It appears that researchers have accepted that daily hassles are a better predictor of mental health status, though the previous research has been limited as it has not examined the phenomenon in diverse populations. Researchers should also continue to examine daily hassles within the context of the individual's life such as researchers have begun to do with college hassles. The Black male college students who attended PWIs reported experiencing stressors unique to their environment and future research could examine other stressors that are relevant to African Americans. It is unclear from the research in this area thus far, as to whether particular types of daily hassles will be more or less predictive of mental health status, particularly for African Americans. It will also remain important to examine the protective factors that allow individuals to cope with life stressors if they are appraised as threatening or harmful, to determine how the coping factors prevent negative psychological effects.

In the understanding of stress processes, several things remain unclear and require further examination. It will be important to investigate how daily hassles currently relate to mental

health. It is also unclear how different types of daily hassles contribute to negative affect and impact well-being. Further research efforts should also be devoted to understanding the impact of daily hassles that are related to an individual's various group memberships, as well as across diverse groups. Researchers have suggested that specific groups may have general hassles and hassles related to race and ethnicity. This dissertation examined the function of daily college hassles by examining the frequency of the hassles in a population of Black/African American college students. This project compared the college hassles with others types of relevant daily hassles for Black/African American students.

Racial Identity

Racial identity is described as a salient and defining characteristic of people of African descent in the United States of America (Helms, 1995). Racial identity has been demonstrated to be a significant component in the health and well-being of Black people. There are several major models that were developed to describe the psychological framework for responses to racism and coping with internalized images of Black people, to develop a healthy group identity. Researchers have debated whether or not racial identity is a risk or protective factor against racism or psychological well-being and continue to investigate the models and the relationship the construct has with psychological outcomes.

Cross' Model of Racial Identity

Cross (1971, 1978) was one of the first researchers to formally develop a model of Black racial identity development. His five stage model of Nigrescence was later updated into a four stage model and has since been updated to a cluster model (Vandiver, 2001). The theory described the progression that Black people experience as they develop a healthy group related identity and included the Pre-Encounter, Encounter, Immersion/Emersion, and Internalization

stages (Cross, 1991). During the *Pre-Encounter* stage, Black people have a pro-American viewpoint and have low racial salience. During this stage, individuals are described as having an anti-Black miseducation and self-hatred. The second stage was the *Encounter* stage, which Cross described as the time for which Black Americans experience a personalizing racial event that destroys the opinions and beliefs that were held during the Pre-Encounter stage. During the *Immersion/Emersion* stage, individuals experience cognitive dissonance as they simultaneously gain a new reference point in their beliefs about Black people and attempt to change their old identity. This stage had two identities, Intense Black Involvement and Anti-White. Individuals embraced all aspects of Black culture (i.e., Intense Black Involvement), while rejecting White culture (i.e., Anti-White). The *Internalization* stage consisted of three separate identities. The Nationalist identity held ideas and actions that involve empowering the Black community. The Biculturalist identity reflected the development of self-acceptance and acceptance of other cultures. Individuals also acquire a Multiculturalist identity during the Internalization stage that involved a focus on two or more salient identities.

Following Cross' initial theory, Parham (1989) re-conceptualized the Nigrescence model and described the process of Black racial identity development as a lifelong, beginning in adolescence, which can continue through late adulthood. Parham posited that the onset of Nigrescence can vary and does not necessarily begin in the Pre-Encounter stage. Parham's conceptualization suggested that the stages of Black identity development may not be linear as Cross described. Instead, Parham suggested that individuals may cycle back and forth between stages as they struggle to find resolution and integrate their new experiences into their identity.

Researchers continued to expand the original model of Nigrescence and have revised the model to include additional components (Cross & Vandiver, 2001). The revised theory

addresses six key issues and outlines eight identity (attitude) types. The researchers moved away from a stage development model because they viewed socialization as a process that occurs throughout life. Black identity was defined as a way an individual thinks, feels, and acts in regard to aspects of the reference group orientation or social identity. The six levels of the revised Nigrescence model addressed specific issues related to the Black experience in America (Cross & Vandiver, 2001). The first level included the structure of Black self-concept. Self-concept was described as encompassing two components; general personality and reference group orientation. General personality represented an individual's personal identity, whereas, an individual's social identity was described as his or he reference group orientation. General personality or personal identity includes traits, psychological processes, and personality dynamics (e.g., emotions, cognitive skills, self-esteem, and interpersonal skills). The theorists posited that personality was minor in Black identity because "Blackness" is believed to be part of one's social identity or a reference group variable. The second component, reference group orientation, was used to define a sense of self as a social being. The second level involved vast universe of Black identities. The third level was described as identity socialization from infancy through early adulthood. Adult identity conversions or re-socialization experiences comprised the fourth level of the revised Nigrescence model. The fifth level, involved identity recycling, or the experience of continued identity enrichment across the adult life span. The sixth level, identity function, included various aspects of Black identity for individuals across and within situations.

The eight identity types were described as exemplars on a spectrum, which permeate each of the six levels of the theory (Cross & Vandiver, 2001). The revised Nigrescence model clusters the identities into exemplars of Pre-Encounter, Immersion-Emersion, and Internalization,

which represent three diverse worldviews (Cross & Vandiver, 2001). The *Pre-Encounter* attitudes represented attitudes that have low or negative racial salience. The Pre-Encounter exemplar included Assimilation, Miseducation, and Self-hatred. The Pre-Encounter Assimilation identity was a social identity that involved a sense of being American and being an individual. Individuals with this identity type have minimal significance in their racial group identity and are not engaged in Black culture. The Miseducation identity involves Black people who accept stereotypical images, history, and information about Black people as fact. These individuals often compartmentalize and hold negative group images that do not affect their personal self-image. The Pre-Encounter Self-hatred identity included those Black people who view themselves negatively because of their race. In this model, a negative relationship exists between Pre-Encounter Self-hatred and self-esteem (Vandiver, Fhagen-Smith, Cokley, Cross, & Worrell, 2001). In this instance, racial identity shifts from a reference group issue to an issue of personal identity, as high ratings of self-hatred have been associated with lowered self-esteem (Vandiver et al., 2001).

The remaining five identities are represented by the Immersion-Emersion and Internalization exemplars (Cross & Vandiver, 2001). The *Immersion-Emersion* exemplar involved attitudes that are involved in the development of responses to barriers in American society. These identities can be emotionally charged and include the Anti-White and Intense Black Involvement identities. The Anti-White identity described Black people who were consumed by their hatred of White people. These individuals engage in Black problems and culture, but are volatile. Black people, who are dedicated to all things Black, represent the Intense Black Involvement identity. The *Internalization* exemplar included attitudes that represented a healthier integration of beliefs (Cross & Vandiver, 2001). The Internalization

exemplar contained the Nationalist, Biculturalist, and Multiculturalist identities. The Nationalist identity describes Black people who emphasize an Africentric perspective and are highly engaged and the culture and problems. The Biculturalist identity involves individuals who give equal importance to "Americaness" and Africanity. Biculturalist individuals engage in the Black culture, but also engage in mainstream culture. The Multiculturalist identity involves Black people who connect with three or more social categories. These individuals engage in the Black community and appreciate a wide variety of cultural events.

Helms' Model of Racial Identity Development

In contrast to Cross' conceptualization, Helms (1995) described the development of Black racial identity as a subjective experience and focused primarily on the cognitive changes that an individual experiences. Instead of utilizing a stage perspective, Helms described racial identity development as statuses that regulate the individual's interpretation of race related stimuli that generate an underlying schema. The six statuses of Helms' model include, Pre-Encounter, Encounter, Immersion, Emersion, Internalization, and Integrative Awareness.

Individuals experience changes to their cognitive schemas as they experience the different statuses included in the model (Helms, 1995). During the *Pre-Encounter Status*, individuals have attitudes that devalue the Black racial group and praise the White culture. Individuals are described as being oblivious to racial issues within their environment during the Pre-Encounter Status. During the *Encounter Status*, individuals believe that they lack connection to the White culture and experience ambivalence about identifying with the Black culture. During the *Immersion Status*, individuals demonstrate dichotomous thinking that involves an idealization of the Black race and a denigration of White culture. Individuals experience strong connections to Black culture during the *Emersion Status*. The *Internalization Status* involves a

commitment to Black culture, while also having objective responses and interactions with the dominant culture. Individuals also gain the capacity to think about complex racial dynamics. The *Integrative Awareness Status* entails complex racial processing. Individuals recognize oppression of groups and ponder related disempowerment, while also maintaining their Black identity and group involvement.

Sellers' Model of Racial Identity Development

In a re-conceptualization of the Helms' model of racial identity development, Sellers (1993) generated the Multidimensional Model of Racial Identity (MMRI). The author described racial identity as a mechanism for African Americans to define the self in comparison to others. The model held four assumptions about racial identity. Racial identity was viewed as having both dynamic and stable properties that interact with one another. Sellers argued that the various identities were ordered hierarchically within individual self-concept, for which race represents only one identity. The author assumed that it was important to take a phenomenological approach to racial identity to determine aspects of a healthy identity versus an unhealthy identity. The fourth assumption was that racial identity was multidimensional and manifested in numerous behavioral and adaptational ways.

Sellers (1993) posited that there are three independent, but interrelated aspects of racial identity. *Racial salience* is a context dependent dimension of racial identity, which is described as the extent to which one's race is a relevant part of one's self-concept. Sellers posited that racial salience would be the most relevant in the prediction of behavioral responses in a given situation. *Racial centrality* is a stable identity dimension, which describes the significance of racial identity to the individual. *Racial regard* is also conceptualized as a stable dimension of racial identity, involving the individual's affective evaluation of his or her race and the extent to

which one has positive feelings about his or her race. Racial regard can be either public (i.e., the evaluation of how others view your racial group) or private (i.e., the individual's feelings about being Black).

In addition to the salience, centrality, and regard dimensions, Sellers (1993) described four racial ideologies that could make up Black racial identity. Racial ideologies are also stable dimensions of identity, which represent individual beliefs, opinions, and attitudes about how African Americans live and function in society. The *nationalist philosophy* involves a strong emphasis on experiences unique to Black people. The *oppressed minority philosophy* has an emphasis on commonalities among oppressed minority group experiences, whereas the *assimilationist philosophy* focuses on working within mainstream America to achieve life goals. The fourth ideology, a *humanist philosophy*, endorses the idea that there are similarities among all humans. The four ideologies are viewed as distinct dimensions of Black racial identity rather than a total identity. People are likely to hold a variety of philosophies that can vary across context. Sellers further argued that the philosophies manifest in four areas of life: political and economic development, cultural and social activities, intergroup relations, and interaction with the dominant group.

Racial Identity and Mental Health of African Americans

Racial identity has been associated with mental health outcomes such as life satisfaction, depression, and self-esteem (Rowley, 1998; Settles, 2010; Yapp et al., 2011). There remains debate among researchers about the effects of racial identity on psychological outcomes. Utilizing the Multidimensional Model of Racial Identity (MMRI), researchers have investigated the dimensions and their relationship to mental health status.

Rowley, Sellers, Chavous, and Smith (1998) conducted a multi-study longitudinal research project to examine the relationship between racial identity and self-esteem. In the first study, 176 African American students taking introduction to psychology completed the Multidimensional Inventory of Black Identity (MIBI; Sellers et al., 1997) which is a 56-item measure of the stable dimensions of racial identity (i.e., centrality, ideology, regard, and ideology). Item responses are on a seven-point Likert scale ranging from agree to disagree. For this study, the authors utilized the scores on the Centrality, Private Regard, and Public Regard subscales. An example from the centrality scale includes "Being Black is an important reflection of who I am." A higher score on the 10 item Centrality subscale indicated that race is a more important aspect of an individual's concept of self. The Private Regard scale included seven items and measured the extent to which individuals possess positive feelings about Black people. "I am happy that I am Black" is an item on the Private Regard subscale. The three item Public Regard subscale measured the extent to which individuals feel that other groups have positive feelings toward Black people (e.g., "In general, others respect Black people"). The participants also completed the Rosenberg Self-Esteem Scale (Rosenberg, 1979). The Rosenberg scale consisted of 10 items and measured an individual's level of self-acceptance (e.g., "I feel that I'm a person of worth at least on an equal plane with others" and "On the whole, I'm satisfied with myself"). The items were rated on a 5-point scale that measured the extent to which the participant agrees with the statement. The sample was 75% female and the data was collected over four semesters. Rowley and colleagues utilized multiple regression analyses. Racial centrality and public regard were not significantly related to self-esteem, while private regard had significant association with self-esteem. There was a significant interaction between racial

centrality and private regard; such that the high levels of racial centrality and private regard were significantly related to self-esteem.

In the second study, Rowley and colleagues (1998) analyzed the responses of 72 African American high school students to determine if there were differences in the relationships between racial identity and self-esteem by age. The students were recruited from two summer programs and ranged in age from 13 to 18. The Study 2, participants also completed the MIBI and Rosenberg scale. The researchers generated similar conclusions with the high school students as with the college students in Study 1. Racial centrality was shown to moderate the relationship between racial regard (private and public) and self-esteem. In the second study, unlike the first, private regard was not significantly related to self-esteem.

Settles, Navarrete, Pagano, Abdou, and Sidanius (2010) conducted a study to examine the relationship between racial identity and depression in African American women. The authors hypothesized that higher levels of private and public regard would be related to lower levels of depression. The relationships between private and public regard and depression were thought to be mediated by racial centrality. The researchers also hypothesized that self-esteem would mediate the effects of private regard and public regard on depression. The study included 379 female US citizens, aged 18 to 64, with two parents who self-identified or Black or African American. The authors utilized internet discussion groups and websites to recruit the participants. The participants completed the MIBI (Sellers et al., 1997) as a measure of racial identity. Depression was assessed using the Beck Depression Inventory, Second Edition (Beck, Steer, & Brown, 1996). Self-esteem was measured using the Rosenberg Self-Esteem Scale (Rosenberg, 1979).

Settles and colleagues (2010) utilized hierarchical multiple regression analyses and concluded that older women with high levels of private regard and self-esteem had lower levels of depression than younger women. The relationship between high private regard and lower levels of depression was stronger for women with high levels of racial centrality than those women with lower levels of racial centrality. Self-esteem was found to fully mediate the relationship between private regard and depression. Higher levels of private regard and high levels of self-esteem were associated with lower levels of depression. Self-esteem was found to partially mediate the relationship between public regard and depression. The researchers suggested that self-esteem could function as an important factor when considering the relationship between racial identity and depression. Further research is needed to replicate these findings and expand them to address other psychosocial factors that could impact the relationship between racial identity and depression.

In a study designed to examine the relationship between racial identity and life satisfaction, Yapp, Settles, and Pratt-Hyatt (2011) hypothesized that higher levels of racial identity (i.e., racial centrality, public regard, and private regard) would be related to higher levels of life satisfaction. The authors also hypothesized that belongingness would mediate the relationship between racial centrality and life satisfaction and mediate the relationship between private regard and life satisfaction. Perceptions of discrimination were hypothesized to mediate the relationship between public regard and life satisfaction. Finally, the authors believed that there would be gender differences in the strength of the relationship between racial identity and life satisfaction. The researchers utilized a community sample of 161 African Americans aged 18 to 86. The participants completed several instruments including an abbreviated version of the MIBI (Sellers et al., 1997) that was created for this study. Perceptions of racial discrimination

were measured using an eight-item scale assessing life difficulties associated with one's race (e.g., "I experience discrimination in many aspects of my life such as work, school, when shopping, and choosing a place to live"). Perceptions of group belongingness were measured using an eight-item instrument that assessed the degree to which the participants had developed support and a sense of belongingness from their family, community, and racial group (e.g., "People in the neighborhood I grew up in were like an extended family" and "I share a strong sense of culture with others of my race based on our history and traditions"). Life satisfaction was measured via the Satisfaction with Life Scale (Diener, Emmons, Larson, & Griffin, 1985). The researchers concluded that the three dimensions of racial identity tested, were each significantly related to life satisfaction. The authors determined that belongingness significantly mediated the relationship between racial identity and life satisfaction. The authors also noted some gender differences that emerged in the findings (Yapp et al., 2011).

Summary and Critique: Racial Identity

Racial identity is defined as a salient aspect and defining characteristic of African Americans' self-concept (Helms, 1995). Researchers have increased knowledge and understanding of the process for which Black Americans experience as they develop a healthy group affiliation. There are three models that have been developed to describe Black racial identity. Cross (1971) outlined the process as one for which individual's progress from having low racial salience to gaining integrated identities for which individuals gain self-acceptance. Cross' original theory of Nigrescence has been expanded several times (e.g., Cross & Vandiver, 2001; Parham, 1989), but continues to explain the process that Black individuals experience as they develop a healthy sense of their group identity and their relation to others, as well as

learning to integrate their beliefs. Helms (1995) discussed a cognitive process where individuals learn to regulate, interpret, and cope with race-related stimuli.

Sellers (1993) conceptualization of racial identity expands previous work to include both dynamic and stable dimensions that were interrelated. He defined race as only one aspect of an individual's identity. Sellers suggested that researchers should focus empirical inquiry on the stable dimensions of racial identity (i.e., centrality, regard, and ideology). The stable aspects of racial identity have been related to mental health outcomes such as self-esteem, life satisfaction, and depression.

Questions remain in regard to the impact of racial identity as a buffer to negative mental health outcomes. Researchers have laid significant ground work (e.g., Rowley et al., 1998, Settles et al., 2010, Yapp et al., 2011, but it remains necessary for researchers to replicate the findings and expand upon the work. Future research should examine the relationship between racial identity and depression. It is also important to examine how the stable dimensions of racial identity are related to additional mental health outcomes and other psychosocial variables implemented in the onset of depressive symptoms. In this dissertation I examined the function of racial identity as it pertains to the onset and maintenance of depressive symptomatology, to provide more information about the role of racial identity in the mental health status of Black/African American college students.

Racism, Racial Discrimination, and Race-Related Stress

Theorists have utilized several terms when discussing the topic of differential treatment of racial and ethnic groups. Conceptualizations of race-related phenomena have been categorized in terms attitudes, behaviors, and different terms reflect these different types of phenomena. *Racism* is the most inclusive term which has been used to reflect the beliefs,

attitudes, institutional arrangements, and acts that tend to denigrate individuals or groups because of phenotypic characteristics or ethnic group affiliation (Clark, Anderson, Clark, & Williams, 1999). *Racial discrimination* is defined as differential treatment on the basis of race and constitutes behavioral actions and tendencies (National Research Council, 2004). *Prejudice*, is defined by theorists as positive or negative attitudes toward an identified social group (Jones, 2002). Prejudice represents the affective reactions that individuals have to social groups. Particularly, *racial prejudice* is conceptualized by theorists as negative attitudes about a person that are generalized from beliefs held about the individual's racial or ethnic group.

Evolution of Racism in the United States

Prior to World War II, racism was exhibited in ways such as segregation and endorsement of non-egalitarian ideals (Gaertner & Dovidio, 1986). This type of overt racism has been termed "old fashioned" racism. Over time, racism has evolved and is expressed in more subtle manners. Social justice initiatives and legislative actions such as the civil rights movement and the passing of the Civil Rights Act, have changed the functioning of racial discrimination from morally improper to illegal and punishable by the courts (Dovidio & Gaertner, 1998). Racism in present times has changed because of the new consequences of expressing overt actions, which has led to a reconceptualization of racism in America. Gawronski and colleagues (2008) provided a conceptual review of racism that outlines the evolution of the phenomenon in the United States of America. A full review of racism is beyond the scope of this dissertation, but a broad overview is provided of the manifestation of racism and discrimination faced by many minority individuals.

Scholars of a *modern racism* have argued that racial discrimination has not disappeared, but is merely expressed differently (McConahay, 1986). Rather than act out in an overt manner,

racial discrimination is more often expressed as private prejudicial beliefs and various associated conscious and unconscious behaviors. Theorists who coined the term *aversive racism* argued that conflicts exist between negative feelings toward racial minorities and personal aspirations to be non-prejudicial (Gaertner & Dovidio, 1986). The theorists posited that the struggle for individuals to be non-prejudicial allows for the subtle expression of their negative beliefs about racial minorities. The negative feelings that individuals hold are not hostile, instead aversive racists experience discomfort or fear which can lead to avoidance behaviors, despite goals to be egalitarian (Gawronski et al., 2008). *Implicit prejudice* is described as an unconscious and automatic process for which individuals categorize others on group differences, which leads to differential evaluation of group members (Rudman, Greenwald, Mellott, & Schwartz, 1999). Researchers suggested that subtle forms of racism are detrimental much like overt forms of racism.

Racial Discrimination and African American Mental Health

Acts of racial discrimination continue to be perpetuated throughout the United States (Gawronski, Peters, Brochu, & Strack, 2008). The concept of racial discrimination has evolved and is often enacted in more subtle ways. When one experiences discrimination it can lead the victim to feel stress and other negative reactions. African Americans are more likely to report experiencing racial discrimination in contrast to other groups in the United States (Kessler, Mickelson, & Williams, 1999). African Americans are faced with discrimination in numerous arenas including interpersonal interactions, housing, employment, health care, and social services (Landrine & Klonoff, 1996). Researchers estimated that approximately 50% of African Americans report experiencing some form of discrimination and 25 % of African Americans reported that day to day discrimination is frequently experienced (Kessler et al., 1999). In a

study of the exposure to racial discrimination, Forman and colleagues (1997) concluded that 70% of African Americans reported experiencing at least one discriminatory event in contrast to 30% of European Americans. In a conceptual review of the impact of race-related stressors, Clark, Anderson, Clark, and Williams (1999) suggested that perceived discrimination is related to poor psychological outcomes. To gather a greater understanding of racism, one must review the manner for which it has changed in the United States and explore the related effects.

Researchers have sought to examine the impact of racial discrimination on the mental health of African Americans. In a national household survey that spanned 13 years, Jackson and colleagues (1996) sought to examine the physical and mental health effects of racial discrimination on the functioning of African Americans in the United States. The analysis included 623 African Americans over the age of 18 who completed all waves of data collection and were interviewed four times over the duration of the study. Initial interviews were conducted between 1979 and 1980 and follow ups occurred from 1979 until 1992. In addition to sociodemographic variables, the participants completed two measures of racism including the perception of White's intentions and experiences of racial discrimination. Life satisfaction and happiness items were completed as a measure of subjective well-being. Lastly, the participants completed a seven-item measure of psychological distress (e.g., lonely, depressed, jittery, crying, and trouble sleeping) and two measures of physical health, including doctor reported serious health conditions and the impact of health related issues. The researchers utilized repeated measures analyses of variance, Pearson correlations and Ordinary Least Squares regression analyses to test their hypotheses. The researchers concluded that experiences of racism and racial discrimination were inversely related to subjective well-being and positively correlated with physical health problems. There were methodological limitations noted for this study as the

researchers did not control for the impact of other stressful life events that occurred during the course of the study and they also utilized only one question each to assess racial discrimination and distress which could impact the validity of the findings.

Researchers have addressed the effects of racial discrimination on life satisfaction. In a telephone survey of 312 adults aged 18 and older, Broman (1997) aimed to investigate the role of racial discrimination and other race-related factors in the life satisfaction of African Americans. The researcher asked questions across several life situations to assess discrimination including getting a job, shopping at a store, and interactions with the police. Life satisfaction was assessed using one question "How satisfied are you with your life as a whole these days?" There were four response options to the life satisfaction item, ranging from "very satisfied" to "very dissatisfied." Although the researcher utilized only a single item to assess life satisfaction, through multiple regression analyses, he found that exposure to racial discrimination was a significant predictor of life satisfaction (Broman, 1997).

Klonoff, Landrine, and Ullman (1999) were among the first researchers to operationalize racial discrimination in order to investigate the impacts on the mental health of Black people. The authors hypothesized that racial discrimination would have a significant role in the psychological symptoms of that Black people experience. A sample of 520 African American participants, aged 18 and older, completed the Schedule of Racist Events (Landrine & Klonoff, 1996), the Psychiatric Epidemiology Research Interview Life events scale (Dohrenwend, Krasnoff, Askenasy, & Dohrenwend, 1978), and the Symptom Checklist-58 (Derogatis, Lipman, Rickles, Ulenhuth, & Covi, 1994), to determine which variables (i.e., education, income, gender, total life stressful life events, recent stressful life events, and appraised racist events) best predicted psychological symptoms.

Klonoff and colleagues (1999) conducted six step-wise multiple regressions. The researchers concluded that racial discrimination was the best predictor of total scores on the symptom checklist, anxiety, and somatization. General stress was suggested as the best predictor of depression and interpersonal sensitivity. The researchers also conducted six hierarchical regressions for each symptom to determine if racial discrimination contributed to symptoms among Blacks above and beyond the contribution of stressors and status variables (i.e., age, gender, income, and education). The authors found that racial discrimination contributed uniquely to all symptoms beyond the status variables. Racial discrimination was found to account for 6 - 10% of the variance of the psychiatric symptoms. Klonoff and colleagues (1999) conducted one final analysis in which they utilized structural equation modeling to determine how status variables and racial discrimination impact psychiatric symptoms. The researchers hypothesized that after controlling for demographic status variables and general stress, that racial discrimination would predict psychiatric symptoms. The researchers tested three models and concluded that adding racial discrimination to the model in addition to status variables and general stress, provided the best model and adequately fit the data. The researchers determined that racial discrimination was the strongest predictor which was consistent with the findings of their step-wise multiple regressions.

Brown and colleagues (2000) analyzed data from a longitudinal study using a nationally representative sample of Black Americans to investigate the relationship between racial discrimination, the onset of psychological distress, and depression. This study was one of the first studies to examine how racial discrimination relates to psychiatric disorders. The authors had three hypotheses, (a) racial discrimination would be related to high levels of psychiatric distress and a high likelihood of depression at Waves 2 and 3, (b) reports of racial discrimination

at Wave 2 would be related to high levels of psychiatric distress at Wave 3, and (c) high psychiatric distress and being depressed at Wave 2 would be independent of subjective reports of racial discrimination at Wave 3. The 779 adult participants were a part of the National Survey of Black Americans. Between 1979 and 1992, participants completed four in person interviews, as well as a single item measure of racial discrimination (i.e., "Have you and your family been treated badly because or your race in the past month?"), 10 items of psychological distress for the past month rated on a 4-point Likert type scale, and the Diagnostic Interview Schedule (Robins, Helzer, Croughan, & Ratcliff, 1981).

Brown and colleagues (2000) utilized a multivariate ordinary least square regression (OLS) to examine the relationship between psychological distress and racial discrimination. The researchers conducted a multivariate maximum-likelihood logistic regress model (LR) to predict the likelihood of depression. The authors suggested that racial discrimination was related to high levels of distress and marginally related to depression. Brown and colleagues concluded that racial discrimination led to adverse psychological outcomes and poor mental health, but did not lead to an increase in experience of racial discrimination. This study had several limitations including measuring racial discrimination with a single item and the appraisal of the events was not taken into account.

Racism-Related Stress

The effects of racial discrimination can affect individuals in various ways. Racial discrimination can impact the level of stress experienced by individuals. One type of stress that can occur as result of experiencing racial discrimination is racism-related stress or race-related stress. In a conceptual review article, Harrell (2000) defined *racism-related stress* as transactions between individuals or groups and their environment that emerge from the dynamics

of racism, which tax or exceed existing individual and collective resources or threaten well-being. This formulation of race-related stress is consistent with Lazarus and Folkman's (1984) conceptualization of stress.

Racism-related stress can be characterized into six categories (Harrell, 2000). *Racism-related life events* are significant life events that are time-limited and unlikely to occur daily or weekly. These life events occur in all aspects of life (e.g., work, education, and social). The second category of racism-related stress was termed *vicarious racism experiences*, in which stress is experienced through the observation and report of others. *Daily racism microstressors* or *microaggressions*, include subtle and seemingly innocuous racist incidents (e.g., being watched in a store). This type of racism-related stress serves as a daily reminder of one's race/ethnicity. *Chronic-contextual stress* constitutes the fourth type of racism-related stress and involves the impact of socio-political dynamics and institutional racism with the larger environment that individuals must navigate. *Collective experience* and *transgenerational transmission* constitute the final types of racism-related stress. Collective experience involves cultural and sociopolitical manifestations of racism and discrimination on racial/ethnic groups regardless of individual experience. Transgenerational transmission includes the stressful effects of historical context of racial/ethnic groups and their relationship with American society. Given these different types of race-related stress phenomena, it is apparent why researchers have suggested that race-related stress can negatively impact several psychological domains.

Several researchers have investigated the psychological effects of race-related stress for African Americans. Bullock and Houston (1987), for example, conducted a qualitative study with 31 Black students from five predominantly White medical schools. The study involved one- to two-hour interviews. The participants reported their perceptions of racism in high

school, college, and medical school, as well as their responses to racism and methods of coping.

The authors determined that the participants reported experiencing significant racism, prejudice, and that they felt anger and frustration about their experiences.

Armstead, Lawler, Gorden, Cross, and Gibbons (1989) conducted an experiment with 27 Black college students, in which they assessed the physiological and psychological effects of exposure to racism. The participants were subjected to one of three conditions in which they watched film vignettes (i.e., neutral, racist, and anger provoking). Following each film clip, researchers measured the blood pressure of each participant and participants completed a mood checklist and measures of anger. The researchers found that racist stimuli were associated with higher increases in blood pressure than anger provoking stimuli. Participants reported significant levels of anger during the racist and anger provoking exerts. Although the study contained a small number of participants, it provided some evidence of negative psychological effects for the exposure to racism. The study did not provide greater detail about other mood states experienced by participants beyond anger and thus calls for further investigation into the psychological impacts of racism-related stress for African Americans.

In a series of theory driven measurement development and validation studies, Utsey and Ponterotto (1996) suggested that individuals who experience racism, experience stress as a result. The authors integrated the concept of everyday racism into the daily hassles framework to create a measure of race-related stress, entitled the Index of Race-Related Stress (IRRS). The authors found the IRRS was a reliable measure of the multidimensional aspects of race-related stress. The authors also found a significant correlation between the IRRS and perceived stress, as measured by the Perceived Stress Scale (Cohen, Karmarck, & Mermelstein, 1983). The authors concluded that the IRRS had adequate concurrent validity with other measures of stress.

Racism-related stress can occur when an individual experiences acute or chronic racism and discrimination. In a review of the findings from research on the stressful effects of racism for African Americans, Clark, Anderson, Clark, and Williams (1999) concluded that African Americans experience anger, paranoia, anxiety, helplessness, hopelessness, frustration, resentment, and fear as a result of exposure to racist incidents.

In an observational study, Utsey, Chae, Brown, and Kelly (2002), sought to investigate the relationship between race-related stress, ethnic identity, and quality of life. The researchers utilized a sample of 160 participants who identified as African American, Asian American, and Latino in order to make group comparisons. Utsey and colleagues (2002) demonstrated that ethnic group membership was significantly related to race-related stress and well-being. The researchers also concluded that African Americans had a significantly higher level of race-related stress in comparison to the other groups in the study. African Americans were also shown to have significantly higher rating of well-being in comparison to the other groups, suggesting that although they are faced with continued racial discrimination, that at least some group members were able to cope well and largely maintain positive well-being.

Racial Microaggressions

Microaggressions constitute a specific type of race-related stress (e.g., Harrell, 2000). The term microaggression was coined by psychiatrist, Chester Pierce in the late 1970s. Pierce and colleagues defined microaggressions as subtle and automatic "put-downs" and insults that are directed toward Black Americans (Pierce, Carew, Pierce-Gonzalez, & Willis, 1978). Expansions of the original idea led to a conceptualization of racial microaggressions as subtle insults that can be verbal, nonverbal, or visual that are directed toward people of color and that are often automatic or unconscious (Solórzano et al, 2000). The current conceptualization of

microaggressions paints a picture of experiences that are brief and daily, verbal, behavioral, or environmental indignities which can be intentional or unintentional and that communicate hostile, derogatory, or negative racial, gender, sexual orientation, and religious insults to the target person or group (Sue et al., 2007).

In a conceptual article, Sue and colleagues (2007) described how a change in the manner in which racism is enacted has impacted how victims experience racism. The authors noted that racism is more likely to be covert, ambiguous, and more difficult to identify as these insults could be dismissive snubs, looks, gestures, or tones (Sue et al., 2007). The authors suggested that these behaviors can easily be overlooked by the victim and determined to be harmless. However, the researchers suggested that racial microaggressions can still have an impact on functioning and can be harmful and impair one's performance in many settings.

Racial microaggressions are categorized into three distinct domains that include various types of racist acts involving microassaults, microinsults, and microinvalidations (Sue et al., 2007). *Microassaults* are defined as explicit acts of racial derogation. This type of racial microaggression can be verbal or nonverbal and is often a conscious action. The perpetrators of microassaults are theorized to have malicious intent and aim to hurt the victim. Examples of microassaults include name calling, avoidance, and purposeful discriminatory actions. Microassaults are more likely to be conscious and deliberate acts typically done in private to provide some anonymity. When microassaults are done in public, it is theorized that the perpetrator has lost control or feels safe in the environment. An example of a microassault would be calling a person of African descent "colored" or some other derogatory term to his or her face.

The remaining two forms of racial microaggressions are less overt than microassaults and contain subtle meanings that underlie the actions of the perpetrator (Sue et al., 2007). *Microinsults* are often unconscious acts defined as interactions that convey rudeness and insensitivity that demeans a person's racial heritage or identity. Microinsults contain hidden messages that insult the receiver of the comments. The significance of their actions is usually unknown to the perpetrator of microinsults. Following an individual of African descent around a clothing store provides an example of a microinsult, in that the action suggests that the person of African descent is untrustworthy and may steal. Microinsults can also occur nonverbally, such as, when an African American student does not get called on by a professor during a class discussion, suggesting that the student does not have a significant contribution to the discussion.

Four themes have been found among microinsults (Sue et al., 2007). *Ascription of intelligence* involves the assignment of an intelligence level based on an individual's race. Typically the assumption is African Americans have lower intellect. The theme of *second class citizen*, asserts that the person or group is lesser than individuals in the majority racial group. The *pathologizing of cultural values and communications* includes those microinsults that imply the values and communication styles of people of color are abnormal. The final theme is the *assumption of criminal status*, for which people of color are assumed to be criminal, dangerous, or deviant.

The final types of racial microaggressions are *microinvalidations*, which are exchanges that negate the psychological feelings or experiential reality of a person (Sue et al., 2007). Microinvalidations are also unconscious acts that are the most subtle, and for that reason, the most common type of racial microaggression. Examples of microinvalidations include an individual telling an African American that they "don't see color," which negates their

experiences as a racial/cultural being. Microinvalidations also encompass four major themes. *Alien in own land*, refers to the belief that visible racial/ethnic minority individuals are foreigners who were not born in America. *Color blindness* refers to the denial of seeing color or race. The *myth of meritocracy* asserts that race plays an insignificant role in life success. The *denial of individual racism* occurs when individuals claim that they have no role in the continuation of racism. Microinvalidations, microinsults, and microassaults can also be environmental and constitute racial microaggressions that are manifested on systemic or environmental levels. These racial microaggressions could involve companies with only White leaders or university catalogs that only show White students. These types of environmental racial microaggressions suggest that people of color should not be there or that they do not exist.

Racial microaggressions can produce significant psychological distress to Black Americans. Solórzano, Ceja, and Yosso (2000) conducted one of the first empirical studies investigating racial microaggressions experienced by African Americans. The researchers conducted a qualitative study, which utilized grounded theory, to explore the experience of racial discrimination and related responses of 34 African American students at predominantly White institutions (PWIs). The researchers conducted ten focus groups on the campuses of three Research I institutions.   The researchers investigated the effects of racial discrimination, campus climate, and the perception of the universities. The researchers revealed that African American students experience racial microaggressions such as invisibility in the classroom, lowered educational expectations, and racial segregation (Solórzano, Ceja & Yosso, 2000). The participants also reported experiencing racial microaggressions outside the classroom and in social settings, particularly environmental microaggressions (e.g., feeling uncomfortable in the

business school or science department and other areas where Black people were largely absent) and unspoken double standards.

Several researchers have sought to test Sue's 2007 conceptual model of racial microaggressions and gain further understanding of how the concept applies to the experiences of African Americans. Sue, Capodilupo, and Holder (2008) conducted a qualitative focus group study to explore Black Americans' reactions to racial microaggressions. The authors also aimed to explore the consequences of repeated exposure to racial microaggressions. The 13 participants were 23 to 33 years-old and self-identified as Black or African American. Nine of the participants were counseling psychology graduate students and the others were working in higher education. The transcripts from the 90 minute focus groups were analyzed by individual team members, utilizing focus group analysis procedures outlined by Kruger in 1998. The researchers developed domains, extracted core ideas, and reviewed the results. The researchers reached a consensus by following the procedures of a modified version of the consensual qualitative research approach (Hill, Knox, Thompson, Williams, Hess, & Ladany, 2005).

The findings from the qualitative analysis led researchers to suggest that Black Americans experience a five part process when racial microaggressions occur (Sue, Capodilupo et al., 2008). The authors suggested that after Black Americans experience a racial microaggression, there are four additional aspects to the experience: (a) perception of the incident, (b) a reaction, (c) interpretation, and (d) consequences of the incident. Perception of the incident refers to the belief the individual has in regard to whether the incident was racially motivated. Questioning (i.e., pondering whether or not the event was racially motivated) occurs during this domain. The reaction domain denotes the immediate response to a racial microaggression and encompasses the cognitive, behavioral, and emotional reactions that can

stem from the incident. Core themes of the reaction domain include (a) healthy paranoia, (b) sanity check, (c) empowering and validating self, and (d) rescuing offenders. The interpretation domain refers to the meaning the individual assigns to the racial microaggression. The core themes of this domain include, (a) you do not belong, (b) you are abnormal, (c) you are intellectually inferior, (d) you are not trustworthy, and (e) you are all the same. The consequence domain refers to the psychological effects that the victim experiences as a result of the racial microaggressions; including the impacts on behavioral patterns, coping mechanisms, reasoning, well-being, and worldview. The core themes of the consequences domain involve feelings of powerlessness, invisibility, forced compliance, and lack of integrity, along with pressure to represent one's group. The authors noted limitations that include limited information in regard to the types of racial microaggressions participants experienced, the impact of the frequency of racial microaggressions, and the specific sample characteristics. Although methodologically limited, this study represents an early inquiry into the psychological process that occurs when Black Americans are presented with instances of racial microaggressions. Gathering information about the process that is experienced by Black Americans can contribute to the understanding of the phenomenon and could lead to determining better approaches to coping and stress management.

Research on racial microaggressions experienced by Black Americans has also provided some information about relevant themes reflected in the events experienced. Sue, Nadal, et al., (2008) also analyzed data from focus groups to investigate microaggressive events experienced by Black Americans. The authors analyzed transcripts from 90 minute focus groups that included 13 individuals self-identified as Black or African American and demonstrated that six major themes emerged (Sue, Nadal, et al., 2008) The racial microaggressions reported in their

study fell primarily in the microinsult and microinvalidation domains. Themes that emerged from the analysis included assumptions of intellectual inferiority, second-class citizenship, assumptions of criminality, assumptions of inferior status, assumptions of assumed universality of the Black American experience, and assumed superiority of White cultural values/communication styles. Although this line of research could be limited in its generalizability due to the small sample size, this research provides support and extends previous notions about the themes that underlie racial microaggressions.

Sue, Nadal, and colleagues (2008) suggested that there could be specific themes related to the experiences of particular racial/ethnic groups. In the study, the authors found that four of the themes were similar to the findings by Sue, Bucceri, Lin, Nadal, and Torino (2007) when they tested the taxonomy of racial microaggressions experienced by Asian Americans. The authors also found that there were also two new themes that did not occur in Asian American sample, which included the assumption of inferiority and the assumption of the universality of the Black American experience. The theme of an alien in one's own land, was present in Asian American experiences of racial microaggressions, but did not emerge in this study. Further research inquiry is necessary to replicate these findings and gain greater understanding of how racial microaggressions are experienced by African Americans.

Summary and Critique: Racism, Racial Discrimination, and Race-Related Stress

Racism and racial discrimination have evolved in the United States of America. "Old fashioned" racism was overt, but modern forms of racism and racial discrimination are often covert and subtle (McConahay, 1986). Theorists posited that subtle forms of racism would have similar detrimental effect on psychological well-being as overt forms.

African Americans have been shown to be at an increased risk of experiencing racial discrimination and report having more experiences of racial discrimination than other racial and ethnic minority groups (Kessler et al., 1999). It is estimated that at least 50% of African American experience some form of racial discrimination in their lifetime, while 25% report experiencing racial discrimination on a daily basis (Kessler et al., 1999). Acts of racial discrimination have also been shown to lead to stress and other negative health outcomes for African Americans. Researchers have found an inverse relationship between racial discrimination and psychological well-being (Jackson et al., 1996). Racial discrimination was also found to predict life satisfaction, psychological symptoms, anxiety, and depression (Broman, 1997; Brown et al., 2000; Klonoff et al., 1999).

Race-related stress has been conceptualized within the transactional model of stress and is defined as transactions between individuals with the environment that emerge from dynamics that exceed resources (Harrell, 2000). Researchers have suggested that African Americans experience more race-related stress than other racial and ethnic groups (Utsey & Ponterotto, 1996). Race-related stress has also been associated with mental health outcomes such as perceived stress. Although African Americans experience more race-related stressors than other groups, they also report better well-being than other groups (Utsey et al., 2002). Given that racial discrimination is reported by at least 25% of African Americans as a daily occurrence, it is important to specifically examine racial microaggressions.

Racial microaggressions are a type of race-related stress that is defined as subtle and brief occurrences that communicate hostility and derogatory insults (Sue et al., 2007). Racial microaggressions are events that occur frequently, even daily, that can be easily ignored or overlooked because of their subtlety, but can have negative impacts on psychological well-being.

Researchers of racial microaggressions are expanding the work to investigate the impact on mental health outcomes primarily through the qualitative research. Qualitative research has revealed that individuals experience a process when faced with racial microaggressions that begins with the incident and ends with an interpretation of the incident and the consequences (Sue et al., 2008). This experiential process is arguably similar to the appraisal process laid out by Lazarus and Folkman (1984), but includes culturally relevant responses.

Research on racism, racial discrimination, and race-related stress has contributed to our understanding about the impacts of the constructs on mental health outcomes, but there are several limitations that should be noted. There has been a large variability in the definition of research related racism and racial discrimination. There is a lack of clarity of the constructs and minimal consensus about how the terms are used. In the literature the terms of racism and racial discrimination are often used interchangeably. Though the term "microaggression" was coined in the 1970s it has only more recently become more widely utilized. Before its reemergence, researchers utilized measurement instruments that assessed daily, subtle forms of discrimination (or racism), and labeled it among the broader terms of racism, racial discrimination, or race-related stress. There is a lack of consistency in terminology; researchers denote measuring racial discrimination when they are more specifically examining racial microaggressions. There are multiple forms of racism and types of race-related stressors, so it will remain important for researchers to clearly define the type of discrimination they are examining. This inconsistency of terminology can make it difficult to make comparisons across studies and replicate findings.

There has also been variability in the measurement of racial discrimination. Some authors have utilized only a single item, whereas others measure frequency or the participants' perception of the discrimination. When examining the effects of the discrimination, many

authors have failed to control for the overall life stress that individuals are experiencing in their lives. These practices could weaken the strength of the methodology and make it more difficult to gain understanding of how the constructs relate.

Racial microaggressions have and can be conceptualized as a race-related stressor and can be assessed for the impact of the events, but previous research has focused primarily on the frequency of experiencing racial microaggressions and have not examined the impact of how the event bothered the participant. The appraisal of the racial microaggression and the impact on overall life stress has not been thoroughly investigated. Researchers have not provided information about how microaggressions are appraised and how they might lead to stress or other negative mental health outcomes such as depression. It remains unclear which risk and protective factors could be relevant in the onset of poor mental health outcomes as African Americans have been shown to experience greater incidents of discrimination (i.e., more racial microaggressions), yet individuals report more positive psychological well-being. Researchers who examine racial microaggressions should continue to investigate psychosocial variables that could to t buffer the effects of racial discrimination.

Racial Discrimination, Stress, and Depression: Building a Model

The aforementioned research conducted on racial discrimination, stress, and depression has largely revealed information about the variables two at a time, but other researchers have utilized more sophisticated models to explore the interrelationships among the variables. It is important to consider the impact racial discrimination has on stress and depression, because both constructs have been shown to be related outcomes of experiencing depression. Future research should also be directed toward understanding how the constructs function together and elucidating how depression manifests in African American populations.

This dissertation was an attempt to model the effects of racial microaggressions versus general stress, as it predicts depression in African Americans. In order to further the knowledge of the effects of psychosocial factors in the onset and maintenance of depressive symptoms, future researchers must examine the psychosocial variables in conjunction with one another. This review includes findings from previous research on the impact of racial discrimination, racial identity, and stress on depression and also expands upon that knowledge to develop a more sophisticated model. The work of this dissertation was hoped to result in a parsimonious model that has future research and clinical implications.

Racial Discrimination, Stress, and Race-Related Stress

Previous research on racial discrimination and race-related stress has been expanded to include life stress as well. Williams, Yu, Jackson, and Anderson (1997) conducted an empirical study to examine whether general stress and race-related stress varied by race. The authors were also interested in whether race-related stress accounted for differences in health. The researchers hypothesized that comparable assessment of general and race-related stress played an important role in reported racial differences in health outcomes. The study involved 586 Black and 520 White participants aged 18 and older, living in the Detroit metro area. The participants were part of the Detroit Area Study, which involved a multistage area probability sample. Face to face interviews were conducted by psychology graduate students from April 1995 until October 1995.

Williams and colleagues (1997) used several assessment instruments to measure the stress level of participants and related variables. Four measures of health status were utilized as outcome variables. For one item, participants self-reported their illness with responses ranging from excellent to poor. The participants also reported the frequency of psychological distress symptoms (e.g., sadness, nervousness, and hopelessness) in the past 30 days. Participants rated

their bed days during the previous 30 days (i.e., the number of days they were unable to complete normal activities) and rated their psychological well-being on a five-point Likert type scale. The researchers used three items to operationalize the participants' social class or race-related stress, as well as a rating of nine every day discriminatory actions. The social class items included being (a) unfairly denied a promotion, (b) unfairly denied being hired for a job, and (c) unfairly being stopped, searched, or questioned by the police. The discriminatory actions included receiving poor service, treated as if you were not smart, and a lack of courtesy from others. General stress has assessed in terms of chronic stressors, financial strains, and nine major life events occurring in the past year.

Williams and colleagues (1997) conducted hierarchical regressions and group comparisons to analyze the data. The researchers concluded that the Black participants had higher reported levels of life events stress, racial discrimination, and financial stress, whereas Whites reported higher chronic stress. Black participants were found to have poorer health and lower levels of psychological well-being. The authors noted that the differences remain significant after making adjustments for gender and income. There was not a significant difference between Black and White participants on psychological distress.

In a recent empirical study, Hoggard, Byrd, and Sellers (2012) examined the cognitive appraisal process and coping behaviors associated with racially and nonracially stressful events experienced by African American college students. The researchers examined three research questions. The first question was do African Americans appraise racially and nonracially stressful events different. The authors examined if the students coped with the racially and nonracially stressful events in a different manner. The authors also examined whether or not the stressful events (racial and nonracial) differently after controlling for cognitive appraisals of the

events. The study included 35 students from two PWIs and one HBCU. The 35 participants in the study were part of a larger two year longitudinal study.

Hoggard and colleagues (2012) analyzed data from a 20 day daily diary that was completed by each participant. The researchers gathered demographic data and also utilized several assessment questionnaires in addition to the daily diary component of the study. Annually, participants completed questions about their gender, age, year in school, institution, frequency of experiencing racial hassles over the past year (i.e., DLE; Harrell, 1994), and level of perceived stress (i.e., PSS; Cohen et al., 1983). The participants' diary entries were coded for situational characteristics of their stressful events (i.e., predictability, controllability, interpersonal nature, duration, and setting. These questions were coded by two independent coders who were unaware of the research hypotheses. Participants completed three items to assess their cognitive appraisal of events (i.e., how taxing was the event to their resources and ability to cope, how stressful was the event, and how successful they felt coping with the situation. Participants also completed items from the Racial Coping Checklist (Harrell, 1994) to asses coping with racially stressful events and from the Ways of Coping Checklist (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986) to evaluate coping with nonracially stressful events. Three additional items (i.e., "Avoided the people/places involved," "Got into an angry verbal conflict with the person(s) involved," and "Thought about it constantly") were completed by participants for both types of stressful events. Each participant reported experiencing at least one racially stressful event and one nonracially stressful event during the 20 days of the study.

The researchers utilized three hierarchical linear models to estimate and compare the cognitive appraisal variables and the coping variables of racially and nonracially stressful events

(Hoggard et al., 2012). Hoggard and colleagues (2012) found that there was no difference in appraisal of the racially and nonracially stressful events. The authors concluded that there were differences in the methods in which the participants coped with their stressful events. The authors suggested that the ruminative coping style associated with racially stressful events could lead to depression. This study was the first to examine potential differences in appraisal and coping of racially and nonracially stressful events. Future research should attempt to replicate this study and further examine the impact of coping and psychological functioning in regard to race-related stress.

Racial Discrimination, Stress, and Depression

Researchers have also explored the impact of racial discrimination and stress on depressive symptomatology. Ong, Fuller-Rowell, and Burrow (2009) examined the relationships between chronic and daily racial discrimination, negative life events, and psychological distress in African Americans. Their internet based study included 174 African American doctoral students and graduates aged 22 to 67. The doctoral students and graduates were from over 70 colleges and universities, but the researchers did not report the graduate disciplines. The participants were recruited through national fellowships and other programs and organizations aimed to assist African American students. The participants completed the Daily Life Experience subscale of the Racism and Life Experience Scale (DLE; Harrell, 1994) as a measure of chronic racial discrimination. The DLE required participants to rate the frequency of 20 racism-related events over the past year (e.g., "Others expect your work to be inferior"), on a six-point scale of "never happened to me" to "once a week or more." The DLE also has a rating of how bothered they were by each event on a scale of "didn't bother" to "bothered extremely." The participants completed a modified version of the DLE to account for experiences of racial

discrimination each day of the study, which was created for this study. The participants completed items from the Inventory of Small Life Events (Zatura, Guarnaccia, & Dohrenwend, 1986). The participants also rated items to measure negative affect (e.g., guilt, angry, nervous) on a five-point scale that ranged from "very slightly" to "extremely." Lastly, the participants completed a modified version of the Mental Health Inventory (Veit & Ware, 1983) which assessed daily symptoms of anxiety and depression.

Using a multilevel random coefficient modeling analysis, Ong and colleagues (2009) found that more chronic racial discrimination was significantly related to higher levels of daily negative affect. Daily racial discrimination mediated the relationship between chronic racial discrimination and depression. The researchers also concluded that more chronic and daily racial discrimination had unique and additive effects on psychological distress. Higher levels of chronic racial discrimination did not increase the impact of daily negative events on psychological distress. The researchers suggested that daily experiences of racial discrimination uniquely impacted psychological distress. This research revealed more support that racial microaggressions have a unique and significant impact on the mental health status of African Americans.

Torres, Driscoll, and Burrow (2010) sought to examine the impact of race-related stressors on African American mental health and expand the understanding of the effects of race-related stressors over time. The researchers conducted a longitudinal study that involved a mixed methods design. The participants were recruited from academic fellows programs, associations, and support organizations for African American doctoral students. The participants reported graduate degrees among the physical sciences, material science and engineering, health sciences, social sciences, arts, and humanities. In the qualitative portion of the study, there were

97 African Americans; 46 of whom had obtained doctoral degrees; the remaining participants were graduate students. The participants completed open-ended questions and were asked to describe the challenges and successes they experienced during graduate school. The data were collected through the use of written responses to questions that were provided via the internet. The data were analyzed utilizing grounded theory and the researchers generated categories and themes (Strauss & Corbin, 1990). Three themes resulted from the findings including, assumption of criminality/second class citizen, underestimation of personal ability, and cultural/racial isolation (Torres et al., 2010). These findings yielded similar conclusions to those of Sue and colleagues (2008) in regard to the themes underlying racial microaggressions experienced by African Americans (e.g., assumption of criminality, second class citizen status, and underestimation of ability). Although the researchers revealed similar themes, the study may have been limited as it did not involve in-person interviews to gather and expand upon the experiences of the participants.

The quantitative aspect of Torres and colleagues' (2010) mixed method study was an observational study involving data collected at two time points during a one year time period. The quantitative portion of their study involved 174 doctoral students and recent graduates at Time 1 and 107 participants were retained in the study at Time 2. The researchers noted that 23 participants completed both the qualitative and quantitative portions of the study. The participants were recruited similarly to the qualitative portion from fellowship programs, associations, and other organizations. The data was also collected via the internet.

The participants of the study completed several instruments to assess the relationships between racial microaggressions, perceived stress, and depression (Torres et al., 2010). The participants completed the DLE to assess the frequency and impact of 20 racial microaggressions

experienced over the past year (Harrell, 1994). At Time 1, the participants also completed the

Behavioral Attributes of Psychosocial Competence-condensed form (Zea, Reism, & Tyler, 1996)

as a measure of active coping. The participants completed 13 items and were forced to choose

an active or passive behavior coping style. Perceived stress was measured using the Perceived

Stress Scale (Cohen et al., 1983). The authors utilized a 10-item form the instrument for which

participants rated the items on a Likert scale of "never" to "very often". The participants also

completed the Center for Epidemiological Studies-Depression Scale (Radloff, 1977), which is a

20-item self-report measure that assessed the frequency of depressive symptoms over the past

week. Participants rated items on a scale of "rare, none of the time(less than 1 day)" to "most of

the time (5-7 days)." The researchers hypothesized that data would support a moderated-

meditational model for which perceived stress mediated the relationship between racial

microaggressions and depression at the one year follow-up. The authors also hypothesized that

active coping would moderate the relationship between racial microaggressions and perceived

stress.

      Torres and colleagues (2010) conducted a factor analysis of the DLE and the authors

concluded that three factors emerged from the data that included an underestimation of personal

ability, cultural/racial isolation, and an assumption of criminality/second class citizen. The three

factors were consistent with the factors that were derived from the qualitative portion of the

study utilizing Grounded Theory. Multiple regressions were conducted to test the moderated-

meditational model using each one of the factors separately. The researchers suggested that an

underestimation of personal ability at Time 1 significantly predicted depression and stress levels

at Time 2. After controlling for the effects of trait level depression, the authors determined that

underestimation of personal ability was related to an increased perception of life stress, which

was related to more depressive symptoms. The remaining two factors did not have a significant relationship with depression. The authors suggested that racial microaggressions could increase one's perception of life stress and in turn increase depressive symptoms.

To further expand knowledge of college hassles, (2010) examined the effects of college hassles on the relationship between racial discrimination and depression. The study involved 194 African American students ranging in age from 18 to 34 and 65% of the sample was aged 18 to 20. The majority of the sample (62%) was sophomores and juniors. The participants completed the DLE (Harrell, 1997) as a measure of racial discrimination, the CES-D (Radloff, 1977) to assess symptoms of depression, and provided sociodemographic information. The participants also completed a measure of college hassles that was adapted from the Inventory of College Students' Recent Life Experiences (Kohn, Lafreniere & Gurevich, 1990). The author piloted the revised 18-item measures on a group of African American students prior to using it in the study. The respondents rated the frequency of each hassle over the past year on a scale of 0 (never happened) to 5 (once a week or more). Examples of events from the instrument include, "being let down or disappointed by friends" and "important decisions about your education."

Banks (2010) found that racial discrimination had a positive correlation with college hassles and with depression. The author found that college hassles were positively correlated with depressive symptoms. She conducted a hierarchical ordinary least squares regression analysis and found that college hassles fully mediated the relationship between racial discrimination and depression scores.

Racial Identity, Racial Discrimination, and Mental Health

Researchers have also sought to examine the impact of both racial identity and racial discrimination on mental health outcomes. It has been suggested that racial identity can buffer

against the adverse consequences of racial discrimination (e.g., Branscombe, Schmitt & Harvey; 1999; Crocker & Mayor, 1989). Sellers and Shelton (2003) conducted a longitudinal study to examine the relationship between racial discrimination and racial identity. The researchers examined whether racial identity dimensions (i.e., racial centrality, racial ideology, and racial regard) predicted the amount of racial discrimination that individuals experienced. They also investigated if experiences of racial discrimination were associated with mental health status. Lastly, the researchers questioned whether the dimensions of racial identity would buffer against the negative effects of perceived racial discrimination on subsequent mental health status. The sample included 267 African American first year college students from three predominantly White institutions. The participants completed the MIBI (Sellers, et al., 1997) DLE (Harrell, 1994), CES-D (Radloff, 1977), PSS (Cohen et al., 1983), and the State-Trait Anxiety Inventory (STAI; Spielberger, 1983). The measures were completed at the beginning of their first semester and again at the end of their second semester.

Sellers and Shelton (2003) conducted hierarchical regressions to examine the relationship between racial identity and racial discrimination. The authors found gender differences, which was surprising, as previous researchers had not reported gender differences. Men were more likely to report an increase in the frequency of racial discrimination experiences over the course of the study. The authors determined that racial centrality was positively related to perceived racial discrimination. Racial ideology was correlated with racial discrimination, such that individuals with a high nationalist ideology reported experiencing more racial discrimination. Racial ideology and public regard were not significantly related to racial discrimination, when racial centrality was taken into account. The researchers concluded that the participants were bothered by their experiences of racial discrimination which led to more psychological distress.

In a longitudinal empirical study, Sellers, Caldwell, Schmeelk-Cone, and Zimmerman (2003) examined the relationships among racial identity, racial discrimination, perceived stress and mental health status. Sellers and colleagues utilized data from participants who were a part of a larger longitudinal study of urban at risk students in Michigan. The 555 African Americans participants whose responses were analyzed for this study were in the 9th grade and had GPAs that were below 3.0 during the 1994-1995 school year. In-person structured interviews were conducted with each participant at the school and lasted approximately 50 to 60 minutes. The participants also completed a paper-and-pencil questionnaire. The questionnaire contained the MIBI (Sellers et al., 1997), DLE (Harrell, 1997), PSS (Cohen et al., 1983), items from of the depression and anxiety subscales of the Brief Symptom Inventory (Derogatis & Spencer, 1982), and demographic questions.

Sellers and colleagues (2003) had two objectives for the study. First, they examined the effects of racial identity, racial discrimination, and perceived stress on psychological distress. The researchers' second objective was to examine whether experiences of racial discrimination and stress mediated the relations between dimensions of racial identity (i.e., racial centrality and public regard) and mental health status. The researchers hypothesized that racial centrality would be related to more reported experiences of racial discrimination, which in turn would lead to higher levels of stress and poorer mental health outcomes. They argued that stress would mediate the relationship between racial discrimination and mental health outcomes. The authors also aimed to test the direct relationships between two dimensions of racial identity and mental health. The researchers' final hypothesis suggested that racial centrality would moderate the relationship between racial discrimination and psychological distress. Racial identity was hypothesized to attenuate the negative effects of racial discrimination.

Sellers and colleagues (2003) initially computed descriptive statistics for the sample then utilized procedures for path analysis to test their hypotheses. Their analyses revealed that people with higher levels of racial centrality reported less stress and less psychological distress. Public regard racial identity did not have a significant relationship with distress. Public regard was negatively correlated with racial discrimination, whereas racial centrality had a significant positive relationship with racial discrimination. Increased experiences of racial discrimination were associated with poorer mental health outcomes, but there was also an effect on the mental health outcomes for perceived stress, which was also associated with discrimination. The researchers concluded that perceived stress partially mediated the relationship between racial discrimination and mental health outcomes. The researchers' conclusions suggested that stress processes might be one pathway through which racial discrimination could negatively impact mental health.

Neblett, Shelton, and Sellers (2004) conducted a longitudinal study to explore whether racial identity was related to African Americans' views of daily race-related hassles. The authors aimed to examine whether daily race-related hassles predicted mental health status. The authors also investigated the role of racial centrality and analyzed its ability to attenuate the effects of daily race-related hassles on mental health status. The study included 188 African American college freshmen (75% female) who completed the questionnaire during the beginning of their first year and again at the end of the second semester of their first year. The participants completed the 56-item MIBI (Sellers et al., 1997) as a measure of racial identity. Daily race-related hassles were measured using the DLE (Harrell, 1994). The frequency and severity of 18 microaggressions were combined for a composite score of racial discrimination. The

participants completed the CES-D (Radloff, 1977), PSS (Cohen et al, 1983) and STAI (Spielberger, 1983) as measures of mental health status.

Neblett and colleagues (2004) used regression analyses to examine the relationship between racial identity and daily race-related hassles. The researchers used gender and the racial makeup of the school as control variables in each the analysis. The authors concluded that racial centrality, public regard, and nationalist ideology were significant predictors of race-related hassles. Individuals who had high scores on the measures of racial identity also reported more daily race-related hassles during the past year. The authors conducted three regressions to determine if racial identity or daily race-related hassles at Time 1 predicted mental health status at Time 2. Researchers entered the predictor variables into three separate models to predict anxiety, depression, and stress. The researchers concluded that only daily race-related hassles predicted mental health status (e.g. anxiety, depression, and stress levels). More daily race-related hassles at Time 1 were associated with more symptoms of anxiety, depression, and stress at Time 2. The dimensions of racial identity were not significantly associated with the mental health outcomes.

To examine if racial centrality moderated the relationship between daily race-related hassles and mental health status, Neblett and colleagues (2004) conducted three hierarchical OLS regressions (i.e., one model for each mental health outcomes variable). Daily race-related hassles had a direct relationship with mental health status. There was also a significant interaction between racial centrality and reported race-related hassles. People with low and medium levels of racial centrality had significantly poorer mental health. For, individuals with high levels of racial centrality, daily race-related hassles did not have a significant impact on their anxiety, depression and stress levels. The researchers suggested that racial identity could

function as a risk or protective factor for mental health outcomes for individuals who experience daily race-related hassles. Racial identity could serve as a protective factor against racial discrimination, such that, racial centrality attenuates the negative effects of racial discrimination.

Burrows and Ong (2010) analyzed the same longitudinal data from the previously described mixed methods study of race-related stressors and mental health, by Torres and colleagues (2010) to investigate the relationship between racial discrimination and racial identity. They hypothesized that higher levels of racial centrality and lower levels of public regard would be related to more daily racial discrimination. The researchers also hypothesized that racial centrality would increase effects of daily racial discrimination on stress and that public regard would mitigate the effects. The study included 174 African American doctoral students and graduates who also completed the MIBI, CES-D, DLE, a measure of negative affect, and the anxiety and depression subscales of the Mental Health Inventory (Veit & Ware, 1983). The researchers found that the participants experienced an average of six racial discriminatory acts over the two week duration of the study. Higher levels of racial centrality were associated with increased reports of racial discrimination. This finding was consistent with that of previous studies (e.g. Sellers et al., 2003; Sellers & Shelton, 2003). Racial centrality was demonstrated to exacerbate the reactivity participants had to racial discrimination. Higher levels of racial centrality were associated with more racial discrimination and subsequent higher levels of psychological distress. Public regard was not found to be a significant moderator of racial discrimination and distress.

Summary and Critique: Racial Discrimination, Stress, and Depression

Some researchers have conducted more sophisticated empirical inquiry into the relations among variables associated with depression in African Americans. Williams and colleagues

(1997) concluded that race-related stress could contribute to health disparities and they promoted the continued exploration of the effects of discrimination and stress on mental health outcomes. Hoggard and colleagues examined the appraisal and coping processes of racial and nonracially related stressful events. The authors concluded that African American college students do not differ in their appraisal of events (i.e., racial and nonracial), but differ in their method of coping with the events. These researchers suggested that the unhealthy coping mechanisms could be an important factor that could lead an individual to experience poor psychological functioning after experiencing race-related stress (Hoggard et al., 2012). Researchers have examined the relationship between racial microaggressions, various types of stress, and depression (Banks, 2010, Ong et al., 2009, Torres et al., 2010). The researchers concluded that racial discrimination, or racial microaggressions, had a significant impact on stress, depression, and other mental health outcomes.

Researchers explored mechanisms to explain the process by which racial discrimination impacts depression. Perceived stress and college hassles were found to mediate the relationship between racial microaggressions and depression (Banks, 2010; Sellers et al., 2003). Sellers and colleagues (2003) explored racial microaggression within the Lazarus and Folkman (1984) framework and studied perceived stress as a mediator. Although the authors found that stress mediated the relationship between racial discrimination and depression, the findings have not been replicated. Torres and colleagues (2010) examined the mediation of perceived stress on racial discrimination and mental health, but the authors utilized factors derived from the DLE to test their model. These findings have not been replicated and it is unclear if a similar DLE factor structure would emerge with another sample. The authors did not test a total rating of racial microaggressions frequency or severity from the responses on the DLE. Therefore, it also

remains unclear whether similar results (i.e., perceived stress as a significant mediator) could be found in other studies. It remains important for researchers to continue to investigate the effects of perceived stress in the relationship between racial discrimination and depression.

Banks (2010) concluded that racial discrimination had a positive correlation with college hassles and with depression. The researcher also found that college hassle stress mediated the relationship between racial discrimination and depression. These findings should be replicated and further examined to determine how college hassles function with other variables (e.g., perceived stress) to impact depression.

Racial identity has been studied as a possible moderator between racial discrimination and mental health status. Researchers have used Sellers' (1993) conceptualization of racial identity as it relates to racial discrimination and suggested that considering the salience of the identity might be more relevant in understanding the impacts of racial discrimination on mental health. Racial identity, specifically the dimension of racial centrality, has been associated with depression (e.g. Burrows et al., 2010; Neblett et al., 2004; Sellers et al., 2003; Sellers & Shelton, 2003). Various authors have suggested that racial identity changes the relationship between racial discrimination and poor mental health outcomes, but the role of racial identity remains unclear. In some cases, higher levels of racial identity led to more reported experiences of racial discrimination and poorer mental health outcomes (Burrows et al., 2010; Sellers et al., 2003). In other cases, researchers found an interaction between racial identity and daily hassles, for which individuals who had reached higher levels of racial identity development did not experience significant effects from their daily experiences of discrimination (Neblett, et al., 2010). Researchers should continue to investigate the impact of racial identity to determine its role in the relationship between racial discrimination and mental health status. This dissertation

combined the constructs of racial discrimination, stress, and depression in order to gain a complex understanding of they operate in relation to one another in a group of Black/African American college students.

Conclusions and the Proposed Study

Researchers have begun to combine the variables of stress, racial identity, racial discrimination, and depression to examine how they relate to one another. Racial discrimination, in a global and microaggression sense, has been associated with depression among African Americans, however the findings have not been consistent, and further research is warranted.

Thus far, researchers have determined that clinical and subclinical levels of depression are related to physical and mental health outcomes (Gotlib & Hammen, 2009). Prevalence rates of MDD for African Americans are estimated to be as high as 10% (Williams et al., 2007). Researchers have examined numerous biological, psychological, and social variables that could explain the process by which depressive symptoms occur in Black people. Researchers have found disparities in diagnosis, treatment, and experiences of Black people, but a paucity of research remains for investigations of the sociocultural variables that could explain depressive symptomology. Researchers have investigated variables such as stress, racial identity, and racial discrimination to determine their role in the onset and maintenance of depression.

The expression of racial discrimination in the United States has shifted from overt to covert (McConahay, 1986). African Americans have been shown to be at an increased risk of experiencing racial discrimination in the United States in comparison to other racial/ethnic minority groups (Kessler et al., 1999). Experiences of racism can be categorized as race related suggesting that experiencing racial discrimination can serve as an additional life stressor for people of color (Harrell, 2000). The daily incidents of race related stress or racial

microaggressions, are often brief and subtle (Sue et al., 2007). Race-related stress has been shown to contribute to health disparities and increases in negative affect including stress and depression (Williams et al., 2007). Researchers found the frequency of racial microaggressions to have significant impact on perceived stress levels and depressive symptoms (e.g., Banks, 2010; Ong et al., 2009; Torres et al., 2010). Past researchers have concluded that perceived stress partially mediates the relationship between the frequency of racial microaggressions and depression (Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003). Thus far, the findings have not been replicated. Researchers have also failed to examine the impact of the frequency of racial microaggressions when other stressors, such as college hassle stress are taken into account.

Stress is a phenomenon that researchers have demonstrated to have significant impact on both mental and physical health (Lazarus, 1990). Daily hassles, or distressing transactions in the environment that occur frequently, have been found to be better predictors of psychological distress than major stressful life events (Kanner, Coyne, Schaefer, & Lazarus, 1981). Researchers have found that the daily hassles experienced by college students are uniquely related to their phase of life (Ross, Niebling, & Heckert, 1999). Researchers have also examined the daily hassles experienced by African American college students. Researchers found that for African American college students, in addition to the normal hassles associated with college, the students experienced unique stressors related to being accepted, fitting in, and racism/discrimination (Watkins, Green, Goodson, & Guidry, 2007).

It is likely important to examine both general and racial discrimination types of daily stressors, as those stressors could increase individuals' perception of the overall amount of stress in their lives. I hypothesize that if African Americans experience increased frequency of racial microaggressions that those experiences could impact their evaluation of the overall stressfulness

of their lives. Given the global nature of racial discrimination, African Americans may find frequent racial microaggressions as challenging and threatening aspects of society for which they do not have resources to combat. If Black/African American college students find their daily hassles as threatening or challenging and beyond their ability to cope, it could lead to increased levels of perceived stress and subsequent depressive symptoms. It is also important to take other types of daily stressors (i.e., college hassles stress into account, as those additional stressors could also impact individuals' perceived stress levels.

Researchers define Black racial identity as the salient and defining characteristic of people of African descent in the United States (Helms, 1995). Racial identity has also been investigated by researchers to determine its impact on depressive symptoms. In this study, I focused on Sellers (1993) conceptualization of Black racial identity. Sellers' conceptualization of black racial identity was utilized in this study, because it includes both dynamic and stable properties of identity that interact with one another. In Sellers' conceptualization, racial identity is viewed as multidimensional and manifested in numerous behavioral and adaptational ways. Research inquiry utilizing Sellers' (1993) conceptualization to examine the impact of racial identity remains unclear, as researchers have reported contradictory results (e.g., Burrows et al., 2010; Neblett et al., 2004). Prior researchers (e.g., Burrows & Ong, 2010; Neblett et al, 2004; Sellers et al., 2003; Sellers & Shelton, 2003) have suggested that in particular, the racial identity of dimension of racial centrality may be related to mental health outcomes, whereas other types of racial identity have not had significant impacts. In some instances, researchers have suggested that racial centrality functions as a protective factor against negative mental health outcomes, whereas other researchers have concluded that racial centrality is a risk factor for poor mental health outcomes. In this study, racial centrality was evaluated to determine if it moderates the

relationship between racial microaggressions and perceived stress. For the current study, the approach to racial centrality remained exploratory (i.e., without a particular directional hypothesis), as it is unclear whether or not racial centrality would serve as a risk or protective factor. It was believed that racial centrality would impact depressive symptoms in some capacity. I hypothesized that racial centrality's effects would operate through its impact on how individuals evaluate and react to racial microaggressions, predicting their levels of perceived stress and thus affecting depression in Black college students.

In this study, I hypothesized that racial discrimination operates partially through stress processes to influence depression. Stress was considered in this study both in terms of daily hassles stress and overall perceived stress levels. In this study, racial microaggressions (as measured by the frequency of their occurrence) were conceptualized as the daily hassle level experiences of racial discrimination, whereas college hassles represent more general daily hassle level stressors. Given that Black/African American students are likely experience both of these types of stressors; it was hypothesized that both types of stress will contribute to depression. It was hypothesized that this model, which is more comprehensive than previous research in considering relationships among the constructs of interest, would provide a good explanation of depression among Black/African American college students.

It remains important to examine the variables in more sophisticated models to gain greater understanding of the manifestation of depressive symptoms. Racial discrimination has been linked to depressive symptoms by previous researchers, but to the author's knowledge no researcher has combined all the variables to test the process by which depression is impacted by racial discrimination or race related stress, while considering the impact of other stress processes. This type of sophisticated research can provide greater understanding of how stressors (race

related and other) can impact the level of stress Black/African American college students perceive in their lives and their subsequent depressive symptoms. The model may also provide necessary information to improve treatment approaches to depression for Black/African American college students, as well as information to assist social justice initiatives.

The proposed study was an effort to combine several variables that have been shown to be interrelated and impact depressive symptoms. Figure 1 depicts the hypothesized model of relations among racial microaggressions, stress, and depression in African Americans that was tested in the current study. The model is conceptualized within Lazarus and Folkman's (1984) transactional model of stress. It is hypothesized that racial centrality would moderate the relationship between racial microaggressions (frequency rating) and perceived stress levels. Perceived stress was hypothesized to partially mediate the relationship between racial microaggressions and depression, as well as partially mediate the relationship between college hassle stress and depression.

CHAPTER III

METHOD

Included in the following section is information about the methodology of this study. Details about participant recruitment and demographic information are presented in addition to detailed information about each instrument in the questionnaire. Explanations of procedures for data collection are also provided.

Participants

Participants were students recruited from introductory and upper level psychology classes at a large Midwestern university. Students recruited through courses received course credit in return for their participation. Participants were also recruited through email listeservs for Black/African American student organizations at the same university. The participants who were recruited through Black/African American student organizations were entered into a drawing for one of two $50 gift cards as compensation for their participation. Participants were required to identify as Black or African American in order to complete the survey. The participants were informed of the inclusion criteria in the consent form of the study.

When utilizing SEM procedures to tests models, there has been some debate among researchers in regard to the number of participants needed to detect effects when using SEM procedures. Some researchers have suggested that 200 participants should be considered the minimum number necessary to conduct the analysis (Klem, 2006). Other researchers have suggested that a sample size of 100 to 200 participants is medium sized and should be considered large enough to detect significant effect (Kline, 2005).

In total, 153 people completed the survey. Ten participants were excluded from the analysis, because they did not meet the inclusion criteria. One additional participant was excluded because her reported age (68) was an extreme outlier and could not be verified. Only

data from those 142 participants who identified themselves as Black or African American were included in the analyses for the study. The reported age range for the sample ranged from 18 to 31. The mean age was 19.32 (SD = 2.04). Results from the remaining demographic variables (i.e., gender, level of education, and relationship status) are presented in Table 1.

Materials

Demographic Characteristics

The demographic characteristics of this sample were assessed using a questionnaire developed for this study (see Appendix A). Participants provided sociodemographic information that includes questions in regard to their age, gender, race/ethnicity, level of education and marital status. The demographic information was utilized to determine that the participants met the inclusion criteria for the study. The demographic information was also utilized to provide a detailed description of the sample.

Depression

Depression was assessed with the Center for Epidemiological Studies - Depression Scale (CES-D; Radloff, 1977; see Appendix B). The CES-D is a 20-item self-report measure used to assess depressive symptoms. Each item represented a symptom characteristic of depression that was rated on a four-point Likert scale, ranging from 0 (rarely or none of the time--less than 1 day) to 3 (most or all of the time-5 - 7 days). Ratings were summed for a total depression score.

There are several reasons why the CES-D was utilized in this project, including the validity and reliability findings for the instrument. The CES-D has been found to effectively discriminate between groups of psychiatric inpatients and the general population. In this project, it was important to utilize an instrument that had validity in non-clinical college student samples and in African American populations. The instrument has also been shown to be valid in college

student samples (Santor, Zuroff, Ramsay, Cervantes, & Palacios, 1995). Santor and colleagues (1995) conducted a discriminant analyses in multiple college samples and found that the CES-D to be a valid measure of symptoms. The authors also suggested that the CES-D was better at determining the severity of depressive symptoms than another commonly used self-report instrument, the Beck Depression Inventory (Beck, Shaw, Rush & Emery, 1979). Others researchers have also found the CES-D to have satisfactory sensitivity and specificity similar to the revised version of the Beck Depression Inventory (Shean & Baldwin, 2008). Researchers have also investigated the validity of the CES-D in diverse samples. As African American college students are the population of interest for this dissertation project, it was particularly important to ensure the measure of depressive symptoms was culturally appropriate and valid for the participants. Researchers have established that the CES-D produces acceptable reliability and validity statistics in African American samples (Roberts, 1980).

The CES-D has an internal consistency reliability of .85 in the general population and .90 in psychiatric patient populations (Radloff, 1977). The CES-D has demonstrated good concurrent validity given a correlation of .44 with the Hamilton Rating Scale for Depression (Dozois & Dobson, 2002). Although the CES-D is not used as a diagnostic tool, scores above 16 are thought to suggest that the individual has significant depressive symptoms.

Racial Identity

The Multidimensional Inventory of Black Identity (MIBI; Sellers et al., 1997; see Appendix C) was administered as a measure racial identity. The MIBI is a 56-item measure composed of seven subscales. The subscales are utilized independently, but items are interspersed throughout the instrument. The entire instrument was administered to participants but only the Racial Centrality, scales was utilized in the analyses for this study, as racial

centrality has been shown to be related to racial discrimination and perceived stress in previous studies (i.e., Burrows & Ong, 2010; Neblett et al, 2004; Sellers et al., 2003; Sellers & Shelton, 2003). Item responses were rated on a seven-point Likert scale that ranges from 1 (strongly disagree) to 7 (strongly agree). The Racial Centrality subscale contains eight items and assessed the extent to which race is an important aspect of an individual's conceptualization of self (e.g., "Being Black is an important reflection of who I am."

The MIBI was created to operationalize the Multidimensional Model of Racial Identity (MMRI). There are numerous conceptualizations of Black racial identity development (e.g., Cross, 1971, Helms, 1995, Sellers et al, 1997, Cross & Vandiver, 2001) but the MIBI is the only instrument that has been created thus far to evaluate the multidimensional nature of Black racial identity. Given, that each subscale is utilized independently, the MIBI allows for the measurement and analysis of multiple aspects of Black racial identity without the administration of multiple instruments.

Researchers have demonstrated that scores on the Racial Centrality, scale have adequate reliability, with a Cronbach's alpha of .77 (Sellers et al, 1997). To examine predictive validity, the researchers examined race-related behaviors. The researchers utilized identity theory which argues that the prominence of a particular identity is associated with behaviors related to that identity. The researcher's argued that African Americans with a strong racial identity would be more likely to engage in race-related activities (i.e., take Black studies courses in college, have a Black best friend, and contact with Black people). Participants with an African American best friend, who had taken at least one Black studies course, and had more contact with other African Americans, had higher scores on the Centrality Scale, than those who did not (Sellers et al.,

1997). The researchers concluded that individuals with high racial centrality participated in more race-related behaviors.

Perceived Stress

The Perceived Stress Scale (PSS; Cohen et al., 1983; see Appendix D) was used to assess the participants' perception of the stress in their lives. The PSS is a 14- item self-report instrument designed to assess the degree to which one appraises his or her life as stressful (i.e., exceeding one's resources). Respondents rated the items on a five-point Likert scale ranging from 0 (never) to 4 (very often), as they had occurred over the past month. Sample items include, "In the last month, how often have you felt nervous and stressed" and "In the last month, how often have you felt that you were unable to control the important things in your life." A PSS total score was derived by reverse coding seven positive items and then summing the across the 14 items. Higher total scores indicate higher levels of stress. The PSS was utilized in this study because it is considered to be one of the most widely utilized measures of global stress.

Researchers have determined that the PSS is a reliable and valid instrument in numerous samples (Cohen et al., 1983). Researchers have found that the PSS has good reliability with previously reported Cronbach's alphas reported as .84, .85, and .86 in two college samples and a smoking cessation sample. The researchers demonstrated concurrent and predictive validity, such that, the PSS was positively correlated with the College Students Life Events Scale (Levine & Perkins, 1980), the CES-D (Radloff, 1977) and physical health symptoms.

Racial Microaggressions

Racial microaggressions were assessed utilizing the Daily Life Experience (DLE) subscale of the Racism and Life Experience Scales (Harrell, 1994, 1997). This copyrighted measure is not included in the appendices, but examples will be provided. The DLE is a 20-item

self-report measure designed to assess the frequency and impact of experiences of racism-related events or microaggressions. This instrument was conceptually derived from Lazarus and Folkman's (1984) model of stress. The participants rated each of the items on how frequently they experience the microaggression and also rated how bothered they are by each stressor. Frequency was rated on a six-point scale ranging from 0 (never happened) to 5 (once a week or more). Participants rated how bothered they were by the stressor by utilizing a five-point Likert-type scale ranging from 1 (did not bother me at all) to 5 (bothered me extremely). Sample items include "Being treated as if you were stupid and talked down to" and "Others expecting your work to be inferior." Although unpublished, this instrument has been utilized in numerous psychological studies examining the effects of racial discrimination. Reliability of the DLE as measured by Cronbach's alpha has ranged from .81 to .90 in previously published manuscripts. There are several measures of racial related stress, but no other measure was specifically designed to assess racial microaggressions. In recent examinations of racial microaggressions, researchers have utilized the frequency rating and demonstrated that the frequency of racial microaggression was significantly related perceived stress and depression (Banks, 2010; Ong, 2009; Sellers et al., 2003; Sellers & Shelton, 2003; Torres, 2010). Therefore, in this study, racial microaggression was represented by the frequency in which participants experienced the microaggressions rather than the severity rating of the microaggressions.

Racism Experiences

As an additional measure of racial discrimination, the participants completed the Racism Experiences (EXP-TP/ST) subscale of the Racism and Life Experience Scales (Harrell, 1994, 1997). This copyrighted measure is not included in the appendices, but examples will be provided. The EXP-TP/ST assesses the stressfulness and frequency of different types of racism

experiences. The instrument assesses direct (e.g., conflict between someone of a different race/ethnicity) chronic (e.g., a racially hostile atmosphere at your job, school, or neighborhood), vicarious (e.g., witnessing discrimination or prejudice directed toward someone else), and collective (e.g., observing legislative processes or political activities that negatively effect people of your race/ethnicity) experiences of racism. Frequency is rated on a scale of 0 to 4 where 0 = never, 1 = once or twice, 2 = a few times, 3 = often, and 4 = very often. The participants rated stress on a scale of 0 to 4, where 0 = no stress, 1 = a little, 2 = somewhat, 3 = very, and 4 = extremely. The EXP has frequency and stress scores have demonstrated adequate reliability. The Cronbach's alphas have ranged from .86 to .90 in multiple validation samples. Although the EXP-TP/ST was administered to have an additional measure of racism in addition to the daily hassles situations that racial microaggressions represent, the scores were not utilized in the analysis.

College Hassle Stress

The Inventory of College Students' Recent Life Experiences (ICSRLE; Kohn et al., 1990; see Appendix G) was administered as a as a measure of daily hassles for college students. The ICSRLE is a 49-item self-report measure that was developed to assess stressful experiences (e.g., daily hassles) that are often associated with the college experience. The respondents rated the extent to which each situation occurred in their lives over the past month. Each item was rated using a four-point scale: 1 = not at all a part of my life, 2 = only slightly a part of my life, 3 = distinctly a part of my life, and 4 = very much a part of my life. Sample items included "Being let down or disappointed by friends" and "Important decisions about your education. The ICSRLE demonstrated adequate reliability (α = .89). The researchers also found that the ICSRLE to have good reliability, as it was significantly correlated with the PSS. In addition to

rating the intensity of the experience, for this study, the participants also reported how stressful (i.e., severity) the event was for them. The participants rated each on a scale of 0 = no stress to 4 = extremely. The severity ratings for the ICSRLE were gathered to allow for comparison to severity ratings of the DLE, for additional analyses in the future. The ICSRLE was chosen for this study because it was developed to specifically address the daily hassles that college students may combat.

Procedure

Data Collection

There were several different procedures that were implemented in order for participants to access the questionnaire. Participants individually completed the questionnaire via an internet survey site, Survey Gizmo. Participants from the introductory psychology course signed up to complete the research study through a University online experiment scheduling system. The online site indicated that only those students who identified as Black/African American were eligible to participate in the study. Participants arrived in groups to a designated computer lab or office at their scheduled time. The participants in the upper level psychology courses were informed that they could participate in the study as a method of earning extra credit in their course. The information about the study was posted on the University's online class site, where the study restrictions and link were provided. The individuals who were recruited from University student group via email listservs received an email that provided background information about the study, the restrictions, and the online link. Prior to completing the online questionnaire, each participant read a consent form informing them of the purpose of the study and their rights as participants. If participants agreed to complete the study, they were prompted to continue to study questions, as a method of demonstrating their consent to participate.

CHAPTER IV

RESULTS

Preliminary analyses were conducted to ensure adequate reliability of each instrument. Correlations between variables were also examined. Preliminary analyses also included tests of univariate and multivariate assumptions. The primary analysis tested the hypothesized model. Fit indices were also examined.

Preliminary Analyses

Prior to testing the hypothesized model, descriptive analyses were conducted in order to describe the participants and their standing on the constructs included in this study. Table 2 presents the descriptive statistics for all measures in this study. Cronbach's alphas were evaluated to determine that scores demonstrated appropriate internal consistency. Outliers, multicollinearity, and normality, were also examined to ensure no assumptions of structural equation path analysis were violated (Weston & Gore, 2006). Descriptive analyses were examined and revealed no univariate and multivariate outliers among the data. To evaluate multicollinearity, the Pearson's correlations (see Table 3) were examined. Bivariate correlations in which $r = .85$ or more are considered suggest multicollinearity (Kline, 2005). The bivariate correlations among the variables in this study did not exceed $r = .85$ and indicated that multicollinearity was not present.

Skewness and kurtosis were examined for each variable in the hypothesized model to assess normality. To determine skewness and kurtosis, the standard error of each was multiplied by two. The skewness and kurtosis statistics for each variable should fall between the negative and positive range (Keppel & Wickens, 2004). For example, in the current study, the standard

error of skewness was .203. For each variable in the hypothesized model, the skewness statistic

should fall within the range of -.406 - .406. Evaluation of the skewness statistics revealed that

the racial microaggressions and depression scores were positively skewed. A square root

transformation was applied to both variables in an effort to gain normality (Keppel & Wickens,

2004). The skewness and kurtosis statistics of transformed scores of racial microaggressions and

depression were examined and determined to be normally distributed, as the skewness and

kurtosis statistics were within the normal range.

Primary Analysis

Path analysis was utilized to test of the hypothesized relationships between the variables.

Path analysis allows researchers to test multiple dependent variables, as well as a theory of

causal order among a group of variables (Klem, 2006). Path analysis allows researchers to test

both direct and indirect effects among the variables and estimates the magnitude of the effects in

the model (Pedhazur, 1997). A path analysis can also include a measure of fit that demonstrates

if the model provides an accurate representation of the observed data.

A path analysis can be tested in several methods including multiple regression analysis

and within the structural equation modeling (SEM) framework. SEM includes multiple

statistical techniques that combine path analysis as defined above with factor analysis (Weston &

Gore, 2006). SEM typically includes tests of measurement and structural models. Factor

analysis is initially used in SEM, in order to allow researchers to test measurement models that

include unobserved or latent variables. The structural model reflects the interrelationships

among the variables.

Path analysis represents the simplest form of SEM, as it does not include latent variables

and thus a measurement model (Klem, 2006). In this study, the hypothesized model includes

only observed (i.e., manifest) variables. Therefore, it was unnecessary to test a measurement model. Although no measurement model was tested, researchers have suggested that conducting a path analysis utilizing SEM software is an improvement to the regression based approach to estimating path coefficients (Klem, 2006). SEM software packages allow for the analysis of complex models and takes error into account, which cannot be included in regression analyses. When measurement error is ignored it can lead to an underestimation of the mediation effects (Frazier, Tix, & Barron, 2004). Another advantage to conducting path analyses using SEM software is that the analysis includes fit indices that describe how well the model accurately represents the data. For this analysis, the hypothesized model was analyzed using EQS 6.1 (Bentler, 2008).

The current model includes six indicators. Of the indicators, five observed variables were included (i.e., racial microaggressions, racial centrality, college hassle stress, perceived stress, and depression). To account for the possible moderation effect of racial centrality on the relationship between racial microaggressions and perceived stress, an interaction term was created to serve as the sixth indicator. The interaction term was utilized to reflect how racial microaggressions were moderated by racial centrality to predict perceived stress (Little, Card, Bovaird, Preacher, & Crandall, 2007). To create the interaction term (racial microaggressions X racial centrality), the raw scores of racial microaggressions and racial centrality were centered and multiplied by one another.

Model Specification

Specification of the hypothesized model involved describing the relationships among the six indicators (i.e., racial microaggression, college hassle stress, racial centrality, interaction of racial microaggressions and racial centrality, perceived stress, and depression). Racial

microaggressions and college hassles were hypothesized to have direct relationships with perceived stress. Racial centrality was hypothesized to moderate the relationship between racial microaggressions and perceived stress. In order to test for the potential moderation effect of racial centrality, an interaction term was created to serve as an indicator. It was hypothesized that perceived stress would partially mediate the relationship between racial microaggressions and depression. Perceived stress was also believed to partially mediate the relationship between college hassle stress and depression. Racial microaggressions and college hassles were believed to covary. Racial microaggressions and college hassle stress were expected also to have direct relationships with depression. In total, 14 parameters specified for estimation.

Model Identification

It is important to identify models to determine if they can be estimated with an SEM analysis (Weston & Gore, 2006). This step allows researchers to create unique estimates of the parameters given the known number of parameters. The known number of parameters (p) was utilized to calculate the degrees of freedom (p (p+1))/2). In this study, there were seven degrees of freedom.

Models can be classified as under identified, just identified, or over identified based on the degrees of freedom (Weston & Gore, 2006). When degrees of freedom are negative, the model is considered under identified and cannot be analyzed. Positive degrees of freedom indicate that the model may be identified. When degrees of freedom are greater than one, the model is considered over identified. Researchers argue that a larger numbers of degrees of freedom indicate a more parsimonious model (Weston & Gore, 2006). In this study, the seven degrees of freedom represented an over identified model.

Model Estimation

The parameters of the model were calculated during the model estimation. Results of the

model estimation are found in Figure 2. Five of the hypothesized paths were statistically

significant. Racial microaggressions and college hassles significantly covaried, (β = .35, p <

.05). Racial microaggressions were negatively associated with perceived stress (β = -.20, p <

.05). College hassle stress was significantly related to perceived stress (β = .63, p < .05) and

depression (β = .37, p < .05). Perceived stress was significantly related to depression (β = .49, p

< .05). Three of the paths were not statistically significant; these paths included racial

microaggressions to depression, racial centrality to perceived stress and the interaction term to

perceived stress. The path from racial centrality to perceived stress does not reflect a direct

relationship, but was a representation of the variance of perceived stress that was accounted for

by racial centrality. These results indicate that perceived stress fully mediated the relationship

between racial microaggressions and depression. Perceived stress partially mediated the

relationship between college hassles and depression. Racial centrality did not moderate the

relationship between racial microaggressions and perceived stress.

Model Evaluation

To evaluate the accuracy of the model representation or fit, several indices (e.g.,

Comparative Fit Index [CFI], Standardized Root Mean Square Residual [SRMR], and Steiger's

Root Mean Square Error of Approximation [RMSEA]) were examined. CFI (Bentler, 1990) is

an example of an incremental fit index that compares the improvement of the hypothesized

model to a more restricted model. CFI ranges from 0 to 1, with values closer to 1 (i.e., $\geq$ .95)

indicating better fit (Weston & Gore, 2006). In this analysis the CFI was .97, which indicates a

good fit. SRMR (Bentler, 1995) is another fit index that is based on covariance residuals.

Smaller covariance values indicate better fit and an SRMR of .00 demonstrates a perfect fit.

Researchers have suggested that SRMR values should be ≤.08 (Weston & Gore, 2006). The

SRMR of the model was .06, indicating a good fit. RMSEA (Steiger, 1990) adjusts for a

model's complexity. A RMSEA value of .00 indicates a perfect fit, whereas researchers suggest

that values should be ≤.06 (Weston & Gordon, 2006) The RMSEA value for the model was .08

with a 90% CI of (.00, 0014). R^2 was also calculated for perceived stress and depression.

Examinations indicated that the model accounted 35 % ($R^2 = .35$) of the variance of perceived

stress and 56% ($R^2 = .56$) of the variance of depression.

Model Modification

SEM procedures allow for tested models to be adjusted by freeing or setting parameters

(Weston & Gore, 2006). Researchers suggested that model modification be grounded in theory.

In this study, several paths were not significant. Therefore, post hoc analyses were conducted in

order to simplify the model in hopes of determining the most parsimonious model. The

hypothesized model was modified to remove non-significant paths that were deemed appropriate

based on prior research. Given that the impact of racial centrality remains unclear and the

variable did not moderate the relationship between racial microaggressions and perceived stress,

the paths for racial centrality and the interaction term were removed. In previous studies (i.e.,

Sellers et al., 2003) perceived stress was found to partially mediate the relationship between

racial microaggressions, but in this study it appears that full mediation was present. Therefore,

the direct path between racial microaggressions and depression was removed.

Final Model

In the final, model all paths were significant (see Figure 3). Racial microaggressions and

college hassles significantly covaried, ($\beta = .35, p < .05$). Racial microaggressions were

negatively associated with perceived stress (β = -.21, $p < .05$). College hassle stress was significantly related to perceived stress (β = .62, $p < .05$) and depression (β = .32, $p < .05$). Perceived stress was significantly related to depression (β = .52, $p < .05$). These results indicated that perceived stress fully mediated the relationship between racial microaggressions and depression. Perceived stress partially mediated the relationship between college hassles and depression.

The fit indices were examined to determine if the final model accurately represented the data. The CFI for the final model was .99, which indicates a good fit. The SRMR of the modified model .03, indicating a good fit. The RMSEA value for the model was .11 with a 90% CI of (.00, .28). R^2 was also calculated for perceived stress and depression. Examinations indicated that the model accounted 34 % (R^2 = .34) of the variance of perceived stress and 55% (R^2 = .55) of the variance of depression. In order to determine if the modified model was significantly better than the hypothesized model, the χ^2 difference value was calculated. The χ^2 from the modified model (χ^2 = 2.78) was subtracted from the χ^2 of hypothesized model (χ^2 = 13.25). The critical χ^2 value (10.47) had a .89 probability of being significant, which indicated that the modified model was not significantly better than the hypothesized model. Although the modified model is not statistically different than the hypothesized model, the modified model represents the most parsimonious model.

CHAPTER V

DISCUSSION

Researchers have continued to expand their efforts to gain a greater understanding of the manifestation of depression in culturally diverse groups. As prevalence rates of depression remain significant in Black/African American populations, researchers have begun to expand their investigations of the disorder to include social and cultural variables that may contribute to symptoms. This dissertation was an effort to examine multiple psychological and sociocultural variables that have been shown to be related to depressive symptoms in Black/African American populations.

The objective of this dissertation was to test a model of the relationships between racial microaggressions, college hassle stress, racial identity (i.e., racial centrality), perceived stress, and depression in a sample of Black/African American college students. Each of the aforementioned variables had been previously investigated and found to be related to the mental health status of African Americans. It was hypothesized that perceived stress would partially mediate the relationship between daily hassle stressors and depression. Consistent with the hypothesis, perceived stress mediated the relationships between types of daily hassle stress (i.e., racial microaggressions and college hassle stress) and depression. The findings of this study indicated that the stress process is one method in which experiences of daily hassle stress (general and racial) can lead to depressive symptoms. The method in which perceived stress mediated the relationships differed with each type of daily hassles.

Racial Microaggressions

Perceived stress was found to fully mediate the relationship between racial microaggressions and depression, but the direction of the relationship was not as expected. In

prior research, perceived stress has only partially mediated the relationship between racial microaggressions and depression (e.g., Sellers et al., 2003). In this case when a more complex model was examined, there was no direct relationship between racial microaggressions and depression. Previous researchers have suggested that there is a direct link between racial microaggressions and depression (e.g., Banks, 2010; Ong et al., 2009; Torres et al., 2010), but these researchers did not consider the relationships within a more complex model. It appears that the participants in this study were experiencing racial microaggressions, but those experiences did not necessarily contribute to symptoms of depression.

Also interesting in this study, was the significant negative relationship found between racial microaggressions and perceived stress. The variables were related, but as racial microaggressions increased, perceived stress decreased, which contrasts with previous researchers' findings that racial microaggressions lead to increased levels of stress. Although racial microaggressions have been associated with poor psychological functioning, other researchers have found that individuals experiencing racial microaggressions do not necessarily experience decreased psychological functioning as a result of experiencing racial discrimination. Prior researchers have suggested that African Americans experience increased racial discrimination, but African Americans also reported higher levels of positive well-being (Utsey et al., 2002). Utsey and colleagues (2002) argued that reports of higher positive well-being indicated that individuals are able to cope with their experiences of discrimination, which can help them maintain healthy psychological functioning. It could be that the participants experienced racial microaggressions, but there is some unmeasured resiliency factor(s) protecting the participants from experiencing those events as stressful and thus racial microaggressions did not increase depressive symptoms. It appears that racial discrimination is

occurring, as participants reported race-related stressors, but they did not perceive the events as stressful (i.e., exceeding their coping resources).

The current findings regarding racial microaggressions suggest that these events have complex effects that warrant further research. The differences in the relationship between the different types of hassle stress (i.e. racial microaggressions and college hassles) and general perceived stress is one area in which further research is needed. There has been some research conducted to examine whether race-related stressors were appraised and coped with differently than other types of stressors. Hoggard and colleagues (2012) found that there were no differences in how Black college students appraised daily hassle stress (i.e., race related vs. non race related), but they found that participants utilized different coping styles to address their daily hassles. Participants were found to utilize less planful coping that was more confrontive, ruminative, or avoidant in cases of race-related stressors (Hoggard et al., 2012). The researchers argued that the lack of difference between general and racial hassles could be explained by the pervasiveness of racial discrimination.

Argument similar to those of Hoggard and colleagues (2012) can be utilized to explain the relationship between daily hassles and perceived stress. It is possible that the participants in the present study did not appraise the racial microaggressions as beyond their ability to cope. Lazarus and Folkman (1984) theorized that a novel event that individuals appraise as threatening leads to increased stress. The participants could have been protected by their beliefs about the pervasiveness of racial discrimination (Feagin, 1991). Perhaps the participants in the current study did not find the racial microaggressions to be novel, so the events could be considered challenging but not threatening. Given the frequent and pervasive nature of racial discrimination, individuals have previous experiences that may have increased their coping self

efficacy. Researchers suggested that it is important to examine coping methods to reduce negative psychological impacts of racial discrimination. Perhaps it is the negative or unproductive responses that explain previous research findings that racial microaggressions were related to depressive symptoms. Given that racial microaggressions and college hassles only accounted for 35% of the variance of perceived stress, it is possible that there are additional important variables, such as coping, that should be examined.

College Hassles

It was hypothesized that perceived stress would mediate the relationships between college hassles and depression. In general, researchers have found college stress to be associated with depression (MacGeorge, Samter, & Gillihan, 2005). There remains a paucity of research studies that provide information about college stress and depression. The results of the model suggested that perceived stress is an important process by which college hassles impact depressive symptoms. However, perceived stress served as a partial mediator between college hassles and depression. It appears that as college hassles increase the participants' perception that their lives are more stressful, which can lead to an increase in depressive symptoms, but students who experience more hassles can be more depressed, whether or not they perceive their lives as stressful.

This study provided one example of how college hassle stress can be related to depression, through an increase in perceived stress. In the future, researchers should replicate the findings in order to gain more insight to the impacts of stress on the psychological functioning of Black/African American college students. The directionality of the relationship has been largely unstudied as well. In the future, researchers should consider the directionality of the variable and examine if students who are depressed perceive school to be more stressful.

Racial Centrality

Racial centrality was hypothesized to moderate the relationship between racial microaggressions and perceived stress. Past researchers have demonstrated that racial centrality was a significant moderator (e.g., Sellers et al., 2003) and other researchers have suggested that the racial identity dimensions has a significant impact on the psychological functioning of Black people (e.g., Sellers & Shelton, 2003). It is unclear why racial centrality was not a significant indicator in this model.

Although, a null result was found in this study, future research on racial identity is warranted as the construct is likely an important factor in the mental health status of Black/African American college students. The lack of significance for racial centrality in this study could be related to difficulty operationalizing the construct. Researchers have suggested that racial identity can be difficult to measure, because researchers lack a consensus in regard to how the construct should be conceptualized and measured (Burlew & Smith, 1991). Racial centrality could be a significant factor in the relationship of the variables of interest, but there was limited ability in this study to detect effects because of trouble measuring the participants' experiences. Testing moderation remains a complex process for which researchers remained split in regard to the best practices to utilize (Marsh, 2002).

Strengths

This study had several strengths that should be noted. This researcher examined social and cultural variables in addition to psychological correlates of depression to gain a greater understanding of factors that could lead to depressive symptoms for Black/African American college students. To the author's knowledge, this is the first research study in which a complex model that takes into account the impact of sociocultural variables with several types of daily

hassle stressors (race based and general) to understand the impact on depressive symptoms in Black/African American college students were examined. SEM was utilized in order to test the structural model of the variables which allowed for the inclusion of error variance, which allowed this researcher to draw stronger conclusions about the relationships among the variables.

Limitations

This study had some limitations that may affect the generalizability of the findings. The participants of this study were a sample of Black college students were recruited from a predominately White institution (PWI) located in the Midwest United States. In past examinations of the impact of racial discrimination on psychological distress, researchers have found some differences in the experiences of the students at PWIs and HBCUs (e.g., Torres et al., 2010). Researchers have suggested that students at PWIs and HBCUs may differ in the type of racial microaggressions that they experience, which could impact the generalizability of the current findings to other samples. It is unclear if the results of this study would generalize to other Black college students who attended universities with different racial demographics, histories, or institutions that are located in different regions of the country. The sample largely consisted of undergraduate students. Past researchers have examined the experiences of graduate students and it is unclear if the current results are generalizable to all Black college students or if the results are indicative the experiences of undergraduates.

Conclusions, Implications, and Future Directions

The findings of this dissertation study provide useful information that can inform future research efforts, clinical interventions, and social justice initiatives. The current work provides researchers with a framework to evaluate the interrelationships between racial discrimination, stress, and depression in African American college students. This research also provides

clinicians with insight into the psychosocial variables that could lead to stress and depression in Black/African American college students to inform treatment interventions and prevention work. The results can also inform future social justice initiatives.

Research Implications

This dissertation examined the interrelationships among daily hassles stressors (both race based and general), racial identity, perceived stress, and depression. The results were indicative that stress, both race-related and non race related, have significant impacts on psychological functioning of Black/ African American college students. This study also provided some support for the notion that race-related daily hassles impact the psychological functioning Black/African Americans differently than non race-related hassles. This research provided further insight into the psychological and social cultural variables that impact depression. Researchers should continue to investigate how racial microaggressions are processed in order to gain a greater understanding of how these experiences impact psychological functioning. It will likely be important for researchers to replicate these current findings to determine if the results generalize to other samples as the relationships found in this study have not been shown in other independent research efforts. The findings of this dissertation also provide a rationale for researchers to expand their conceptualization of the relationships among the variables and include additional constructs that could explain how racial microaggressions can lead to depression, in addition to stress processes.

In the future, researchers can also expand the current research in several ways. Researchers should consider utilizing other methods of measuring racial identity to determine if the variable serves as a significant risk or protective factor. There are several conceptualizations of racial identity (e.g., Cross, 1971; Helms; 1995; Sellers, 1993) and perhaps utilizing other

conceptualizations or identity types might further explain the role of racial identity in understanding the relationships among the stress and depression constructs. The model could be tested with groups of individuals who represent different identity statuses or ideologies, such as individuals with a Nationalist identity (Sellers, et al., 2003) or individuals with the Integrative Awareness Status (Helms, 1995). Perhaps, the impact of the racial microaggressions will differ among the differing identity statuses and groups. Future researchers should also examine other forms of racial discrimination. This model depicts the relationship racial microaggressions have with stress and depression, but it is unclear if more overt or aggressive forms of discrimination would impact psychological functioning in a similar manner.

This study revealed that racial microaggressions may not operate the same way as other kinds of stressors in African American's lives. More research is needed to understand and facilitate the factors that promote the positive psychological phenomena that protect people from stress despite the presence of race-related stressors. For example, researchers could examine individuals who appear unaffected by racial microaggressions to determine what protects those individuals for deleterious effects of racial microaggressions.   Efforts to improve resiliency and coping may be another dimension through which African Americans may benefit. Researchers may also want to expand their investigations to include resiliency and coping mechanisms as there is evidence that some additional factors could explain the relationships among the variables. Resiliency and coping styles may be two methods that explain the negative relationship between racial microaggressions and perceived stress. These research inquires could fuel future clinical work as they have potential to provide more information about the experiences Black college students combat, as well as an explanation about their levels of stress and depressive symptoms.

Resiliency is broadly defined as a positive adaptation despite negative environmental influences or challenging/threatening circumstances (see: Garmezy, 1991; Kaplan, Turner, Norman, & Stillson, 1996; Rutter, 1993). Researchers suggested that if individuals were resilient that it could lead to lower appraisal of threat, more positive emotions, and more positive meaning finding in their lives which could lead to less psychological distress (Tugade & Frerickson, 2004). Perhaps the participants in this study embody unmeasured resiliency that protected them from the negative effects of experiencing frequent racial microaggressions. In the future, this study could be replicated and expanded to include a measure of resiliency to determine if it moderates that relationship between racial microaggressions and perceived stress.

An additional unmeasured construct that could explain why the participants in this study experienced increased racial microaggressions yet decreased perceived stress, is coping. Researchers have begun to expand their efforts to examine the effects of coping on the experience of racial discrimination. Thus far, researchers have concluded that coping, both active (e.g., confrontative) and passive (e.g., withdrawal), can be effective in reducing and eliminating threats (Feagin, 1991; Clark, 2004; Landrine & Klonoff, 1996). In a research study that examined the impact stress and coping on academic functioning among African American college students at a PWI and HBCU, Greer and Chwalisz (2007) found that students utilized both active and avoidance coping mechanisms to combat with minority status stressors. Coping mechanisms were not found to mediate the relationship between minority status stress and perceived stress (Greer & Chwalisz, 2007). While coping styles did not mediate the relationship between minority related status stress and perceived stress, it could be that coping styles moderate the impact of racial microaggressions on perceived stress. In a related study, Greer and Brown (2011) found that African American students at a PWI and HBCU initially utilized

avoidant and denial coping strategies to combat race-related stressors. The researchers found a significant interaction between minority status stress and problem-oriented coping to predict general perceived stress levels (Greer & Brown, 2011). The findings were surprising as the authors concluded the higher use of problem-oriented coping, lead to higher levels of perceived stress. The significance of coping mechanisms to reduce the impact of race related stress remains unclear and researchers continue their investigations to gain a greater understanding of the role of coping mechanisms.

Researchers have begun investigating culture specific coping mechanism such as Africultural coping (Utsey, Adams, & Bolden, 2000). Utsey and colleagues (2000) described Africultural coping as behaviors that reflect values, attitudes, and customs of an African-centered worldview including cognitive/emotional debriefing, spiritual-centered coping, collective coping, and ritual-centered coping. As there is some support for the idea that coping and resiliency could impact the psychological functioning of Black/African American college students who experience race-related stress, it will remain important for researchers to continue their investigations to gain further understanding of the processes.

In the future, in addition to replicating and expanding the current model, researchers should continue to examine and critically evaluate the instruments that are utilized to measure the constructs of interest. In particular, the method in which racial microaggressions and racial identity are conceptualized and assessed could have significant effects on the results and conclusions that are drawn from research studies. The DLE (Harrell, 1994, 1997) was created by the author to assess racial microaggressions experienced by Black people in America. As the racial climate in America continues to shift to more covert forms, it may be important for future

researchers to examine the instrument to ascertain if the items accurately capture the experiences of racism faced by African Americans.

A similar critical evaluation should also be conducted on the MIBI (Sellers, 1997). Given the difficulty in measuring racial identity researchers should continue to expand their work to gather better representations of the construct. Items on the MIBI leads this researcher to question if the current items accurately capture the thinking of college aged African Americans. Perhaps the null results found in this study were related to the lack of connection to the items or the conceptualization of Black racial identity. It may be beneficial for researchers to update the MIBI to be more representative of the experiences of African Americans today.

Clinical Implications

The results of this study have implications for clinicians. First, clinicians should educate themselves and their clients about race-related stressors in order to help clients manage the stress (Constantine & Greer, 2003). Researchers of diversity and multiculturalism argue that clinicians must be aware of multicultural issues in order to increase their competence and strengthen therapeutic alliances (Tseng & Streltzer, 2004). It will likely be important to provide clients with psychoeducation about racial discrimination and the impact it can have on functioning. If clients understand that there are explanations for their experiences, it could assist them with recognizing the impact of those external factors. The awareness of racial microaggressions will assist clinicians in validating their clients' experiences and hopefully strengthen their therapeutic alliance. Clinicians should recognize the impact that racial microaggressions have on the daily lives of clients and impact the way they interact with the world which begins with clinicians increasing their personal knowledge and awareness.

Given the unexpected relationship between racial microaggressions and perceived stress, it is likely important for clinicians to assist clients in processing their experiences of racial microaggressions. Less effective methods of coping with a racial microaggression, if they perceive the event as stressful, could lead to distress in the future. It may also be important for clinicians to discuss with clients how they are able to cope with their experiences. Clinicians should asses the use of coping mechanisms and be mindful that methods of coping could lead to more positive long term impacts on psychological functioning. It may be beneficial to assist clients in increasing their self-efficacy regarding their ability to cope with racial microaggressions. If clinicians can assist clients with increasing their coping self-efficacy, or confidence in their ability to cope effectively, clients may not appraise racial microaggressions as stressful (Chesney, Neilands, Chambers, Taylor, & Folkman, 2001). Therefore, the client could be protected from the negative impact of racial microaggressions. If the clients are utilizing passive coping mechanisms such as disengagement or avoidance, they may be at risk for developing depressive symptoms (Tugade & Fredrickson, 2004).

Clinicians should also remain mindful of cultural differences in the contributing factors that can lead to depression. This study provides support for the notion that sociocultural variables have an important role in the psychological functioning of Black/African American college students. Aspects of culture and social experiences likely have an important role in the onset and maintenance of depression even if the process is not fully understood. It will remain important for clinicians to continue developing their multicultural competence so they can recognize and include the relevant factors in their conceptualizations and treatment interventions.

Social Justice Implications

      The results of this research also have social justice implications. The current research has provided information about how covert acts of racial discrimination (i.e., racial microaggressions) impact the psychological functioning of Black/African American college students. Given that Black college students continue to experience racial microaggressions, advocates should continue to work toward reducing discrimination and increasing equality. Although the process by which racial microaggressions leads to stress and depression requires continued empirical inquiry, it is also obviously important to working to reduce the frequency of racial microaggressions. Racial discrimination is happening and although individuals may have built resilience against racial microaggressions, experiences of racism and discrimination are still likely to have negative effects on mental and physical health. In the current study, racial microaggressions were also significantly related daily college hassle stress. Increases in college hassle stress were found to be related to increases in general stress and depressive symptoms. It is important to work towards reducing racial microaggressions in society as they are related to increased college hassle stress. It remains import to consider the impact of racial microaggressions for a research, clinical work, and social justice initiatives.

Table 1

Demographic Variables (N= 142)

Variable	Number (%)
Gender	
Female	91 (63%)
Male	52 (37%)
Level of Education	
Freshman	112 (79%)
Sophomore	12 (8%)
Junior	6 (4%)
Senior	7 (5%)
Fifth year	1 (1%)
Graduate level	4 (3%)
Relationship Status	
Single	112 (79%)
Married	5 (4%)
In a relationship	17 (12%)
Dating	1 (1%)
Engaged	1 (1%)
Partnered	1 (1%)
Taken	2 (1%)
With someone	1 (1%)
None	1 (1%)

Table 2.

Descriptive Statistics (N = 142)

	Current Sample			Normative Sample		
	Mean	Std. Deviation	Cronbach's Alpha	Mean	Std. Deviation	Cronbach's Alpha
CESD	15.17	8.59	.86	12.40	8.60	.85
DLE_F	1.33	.85	.93	1.59	1.11	.81
ICSRLE_F	97	20.65	.92	95.74	16.40	.89
PSS	26.44	6.84	.8079	23.18	7.31	.85
CEN	4.82	.98	.72	5.23	1.08	.77

Note. CESD = Center for Epidemiological Studies – Depression Scale, DLE_F = Daily Life Experiences frequency, ICSRLE_F = Inventory of the College Students' Recent Life Experiences frequency, PSS = Perceived Stress, CEN =MIBI Racial Centrality.

Table 3

Correlations (N = 142)

	1	2	3	4	5
1. DLE_F	-				
2. ICSRLE_F	.32**	-			
3. PSS	-.01	.56**	-		
4. CESD	.07	.64**	.69**	-	
5. CEN	.18*	.12	-.04	.02	-

Note. DLE_F = Daily Life Experiences frequency, ICSRLE_F = Inventory of the College Students' Recent Life Experiences frequency, PSS = Perceived Stress, CESD = Center for Epidemiological Studies – Depression Scale, CEN =MIBI Racial Centrality.

** p < .01
*p < .
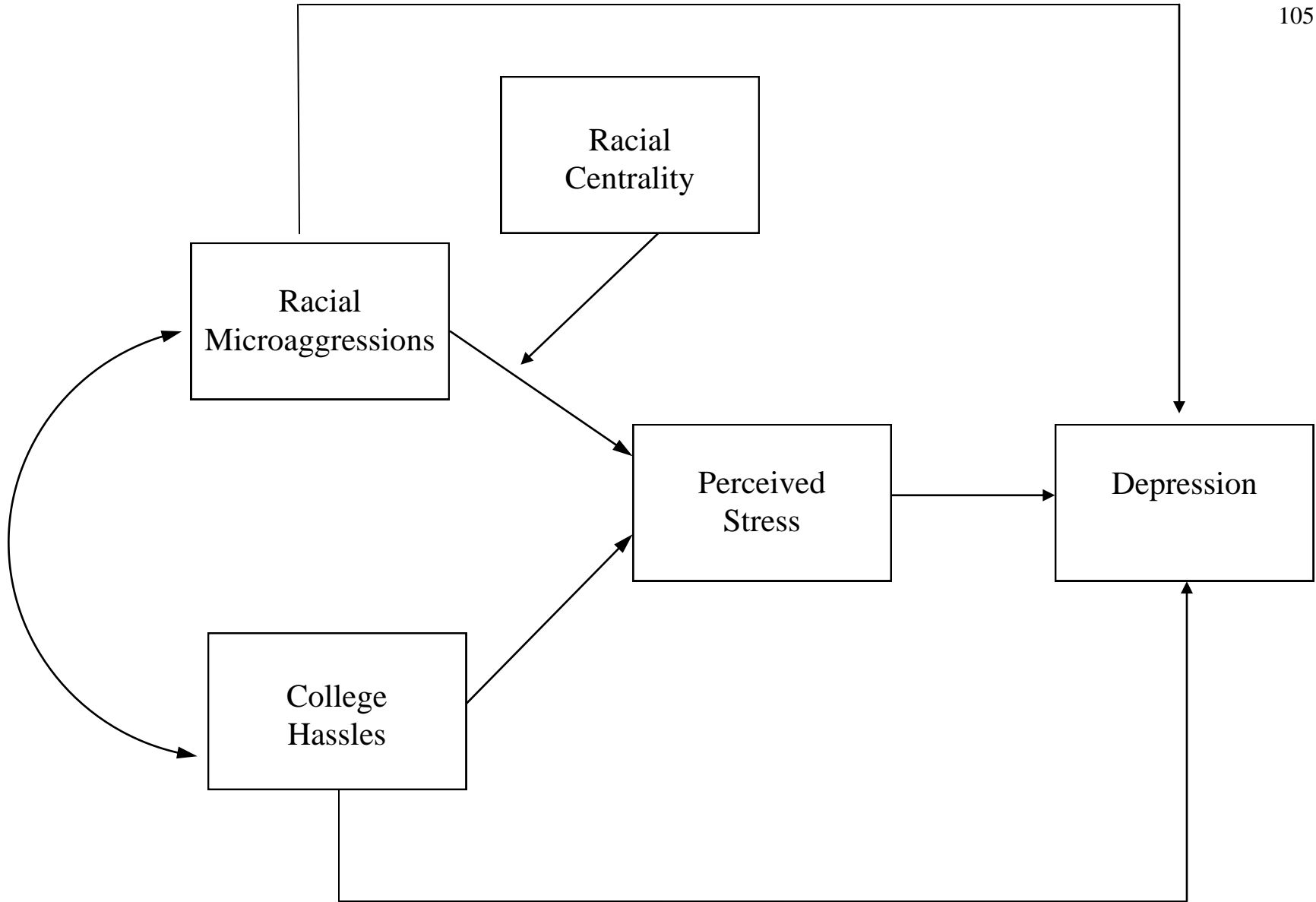
Figure 1. Hypothesized Model of Racial Microaggressions, Racial Centrality, Stress, and Depression

-.29 (-.10)

Interaction of
Racial
Microaggression
and Racial
Centrality

Racial Centrality

.70 (.04)

-.54 (-.08)

Racial
Microaggressions

-3.40 (-.20)*

.08 (.49)*

Perceived Stress

Depression

2.89 (.35)*

College Hassles

.21 (.63)*

e   30.49 (.80)*

e   .59 (.67)*

.02 (.37)*

Figure 2. Results of Hypothesized Model. **p* < .05. Standardized coefficients are presented within parentheses.

Figure 3 Final Model. *p* < .05. Standardized coefficients are presented within parentheses.

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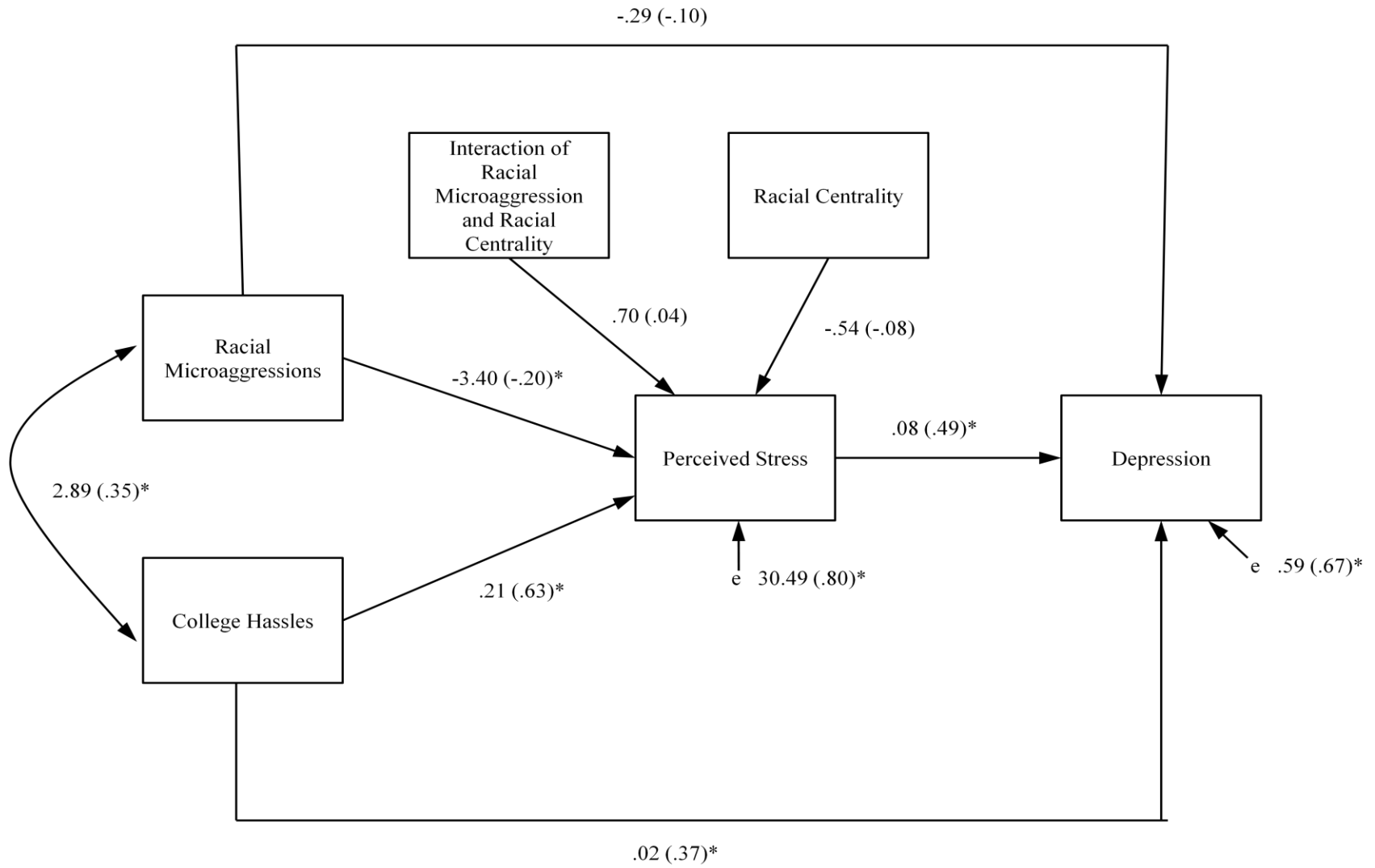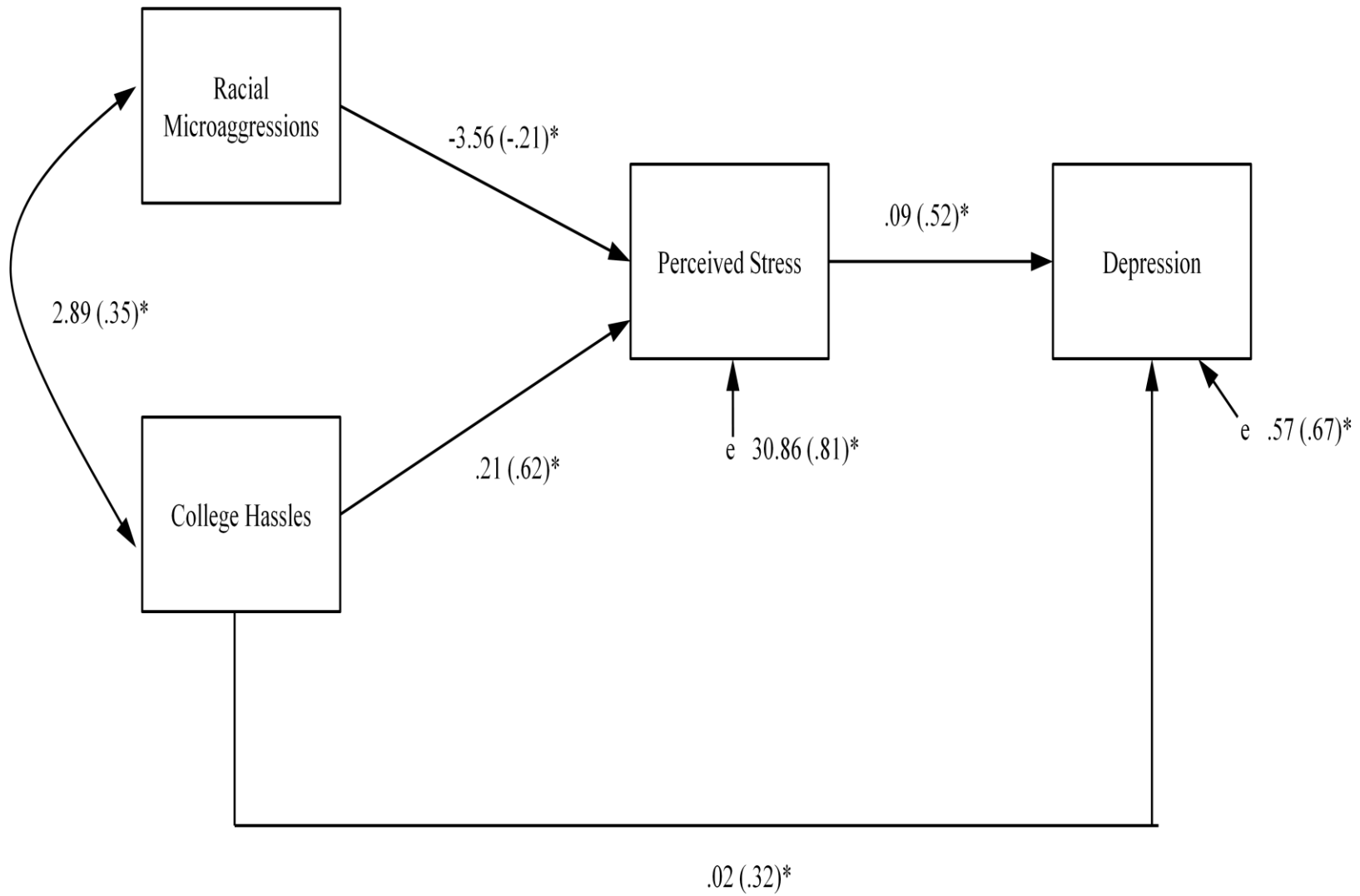Altman, I. (1976). Environmental psychology and social psychology. *Personality and Social

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APPENDICES

APPENDIX A

DEMOGRAPHIC QUESTIONS

Please provide some information about yourself by answering the following questions.

What is your age?

_____

Your gender:

_____

What is your race/ethnicity?

_____

What is your marital status?

_____

What is your year in college? (select one)

Freshman   Sophomore   Junior   Senior   Other

Appendix B

Center for Epidemiological Studies-Depression Scale (CES-D)

Select the number for each statement which best describes how often you felt or behaved this way – DURING THE PAST WEEK.

	Rarely or None of the time (Less than 1 Day)	Some or a little of the Time (1-2 Days)	Occasionally or a Moderate Amount of time (3-4 days)	Most or All of the Time (5-7 days)
DURING THE PAST WEEK:				
1. I was bothered by things that usually don't bother me	0	1	2	3
2. I did not feel like eating; my appetite was poor	0	1	2	3
3. I felt that I could not shake off the blues even with help from my family or friends	0	1	2	3
4. I felt that I was just as good as other people	0	1	2	3
5. I had trouble keeping my mind on what I was doing	0	1	2	3
6. I felt depressed	0	1	2	3
7. I felt that everything I did was an effort	0	1	2	3
8. I felt hopeful about the future	0	1	2	3
9. I thought my life had been a failure	0	1	2	3
10. I felt fearful	0	1	2	3
11. my sleep was restless	0	1	2	3

12. I was happy	0	1	2	3
13. I talked less than usual	0	1	2	3
14. I felt lonely	0	1	2	3
15. People were unfriendly	0	1	2	3
16. I enjoyed life	0	1	2	3
17. I had crying spells	0	1	2	3
18. I felt sad	0	1	2	3
19. I felt that people disliked me	0	1	2	3
20. I could not get "going"	0	1	2	3

APPENDIX C

Multidimensional Inventory of Black Identity (MIBI)

A 7-point Likert type response scale is used with 1=strongly disagree and 7=strongly agree.

1. Overall, being Black has very little to do with how I feel about myself.
2. It is important for Black people to surround their children with Black art, music and literature.
3. Black people should not marry interracially.
4. I feel good about Black people.
5. Overall, Blacks are considered good by others.
6. In general, being Black is an important part of my self-image.
7. I am happy that I am Black.
8. I feel that Blacks have made major accomplishments and advancements.
9. My destiny is tied to the destiny of other Black people.
10. Blacks who espouse separatism are as racist as White people who also espouse separatism.
11. Blacks would be better off if they adopted Afrocentric values.
12. Black students are better off going to schools that are controlled and organized by Blacks.
13. Being Black is unimportant to my sense of what kind of person I am.
14. Black people must organize themselves into a separate Black political force.
15. In general, others respect Black people.
16. Whenever possible, Blacks should buy from other Black businesses.
17. Most people consider Blacks, on the average, to be more ineffective than other racial groups.
18. A sign of progress is that Blacks are in the mainstream of America more than ever before.
19. I have a strong sense of belonging to Black people.
20. The same forces which have led to the oppression of Blacks have also led to the oppression of other groups.
21. A thorough knowledge of Black history is very important for Blacks today.
22. Blacks and Whites can never live in true harmony because of racial differences.
23. Black values should not be inconsistent with human values.
24. I often regret that I am Black.
25. White people can never be trusted where Blacks are concerned.
26. Blacks should have the choice to marry interracially.
27. Blacks and Whites have more commonalties than differences.
28. Black people should not consider race when buying art or selecting a book to read.
29. Blacks would be better off if they were more concerned with the problems facing all people than just focusing on Black issues.
30. Being an individual is more important than identifying oneself as Black.
31. We are all children of a higher being, therefore, we should love people of all races.
32. Blacks should judge Whites as individuals and not as members of the White race.
33. I have a strong attachment to other Black people.
34. The struggle for Black liberation in America should be closely related to the struggle of other oppressed groups.
35. People regardless of their race have strengths and limitations.

36. Blacks should learn about the oppression of other groups.
37. Because America is predominantly white, it is important that Blacks go to White schools so that they can gain experience interacting with Whites.
38. Black people should treat other oppressed people as allies.
39. Blacks should strive to be full members of the American political system.
40. Blacks should try to work within the system to achieve their political and economic goals.
41. Blacks should strive to integrate all institutions which are segregated.
42. The racism Blacks have experienced is similar to that of other minority groups.
43. Blacks should feel free to interact socially with White people.
44. Blacks should view themselves as being Americans first and foremost.
45. There are other people who experience racial injustice and indignities similar to Black Americans.
46. The plight of Blacks in America will improve only when Blacks are in important positions within the system.
47. Blacks will be more successful in achieving their goals if they form coalitions with other oppressed groups.
48. Being Black is an important reflection of who I am.
49. Blacks should try to become friends with people from other oppressed groups.
50. The dominant society devalues anything not White male oriented.
51. Being Black is not a major factor in my social relationships.
52. Blacks are not respected by the broader society.
53. In general, other groups view Blacks in a positive manner.
54. I am proud to be Black.
55. I feel that the Black community has made valuable contributions to this society.
56. Society views Black people as an asset.

Scales and Subscales of the Multidimensional Inventory of Black Identity (MIBI)

Centrality Scale
1. Overall, being Black has very little to do with how I feel about myself. **(R)**
2. In general, being Black is an important part of my self-image.
3. My destiny is tied to the destiny of other Black people.
4. Being Black is unimportant to my sense of what kind of person I am. **(R)**
5. I have a strong sense of belonging to Black people.
6. I have a strong attachment to other Black people.
7. Being Black is an important reflection of who I am.
8. Being Black is not a major factor in my social relationships. **(R)**

Regard Scale
Private Regard Subscale

1. I feel good about Black people.
2. I am happy that I am Black.
3. I feel that Blacks have made major accomplishments and advancements.
4. I often regret that I am Black. **(R)**
5. I am proud to be Black.

6. I feel that the Black community has made valuable contributions to this society

Public Regard Subscale

1. Overall, Blacks are considered good by others.
2. In general, others respect Black people.
3. Most people consider Blacks, on the average, to be more ineffective than other racial groups. **(R)**
4. Blacks are not respected by the broader society. **(R)**
5. In general, other groups view Blacks in a positive manner.
6. Society views Black people as an asset.

(R) *items should be reverse coded.*

Ideology Scales

Assimilation Subscale
1. Blacks who espouse separatism are as racist as White people who also espouse separatism.
2. A sign of progress is that Blacks are in the mainstream of America more than ever before.
3. Because America is predominantly white, it is important that Blacks go to White schools so that they can gain experience interacting with Whites.
4. Blacks should strive to be full members of the American political system.
5. Blacks should try to work within the system to achieve their political and economic goals.
6. Blacks should strive to integrate all institutions which are segregated.
7. Blacks should feel free to interact socially with White people.
8. Blacks should view themselves as being Americans first and foremost.
9. The plight of Blacks in America will improve only when Blacks are in important positions within the system.

Humanist Subscale
1. Black values should not be inconsistent with human values.
2. Blacks should have the choice to marry interracially.
3. Blacks and Whites have more commonalties than differences.
4. Black people should not consider race when buying art or selecting a book to read.
5. Blacks would be better off if they were more concerned with the problems facing all people than just focusing on Black issues.
6. Being an individual is more important than identifying oneself as Black.
7. We are all children of a higher being, therefore, we should love people of all races.
8. Blacks should judge Whites as individuals and not as members of the White race
9. People regardless of their race have strengths and limitations.

Oppressed Minority Subscale
1. The same forces which have led to the oppression of Blacks have also led to the oppression of other groups.

2. The struggle for Black liberation in America should be closely related to the struggle of other oppressed groups.
3. Blacks should learn about the oppression of other groups.
4. Black people should treat other oppressed people as allies.
5. The racism Blacks have experienced is similar to that of other minority groups.
6. There are other people who experience racial injustice and indignities similar to Black Americans.
7. Blacks will be more successful in achieving their goals if they form coalitions with other oppressed groups.
8. Blacks should try to become friends with people from other oppressed groups.
9. The dominant society devalues anything not White male oriented.

Nationalist Subscale
1. It is important for Black people to surround their children with Black art, music and literature.
2. Black people should not marry interracially.
3. Blacks would be better off if they adopted Afrocentric values.
4. Black students are better off going to schools that are controlled and organized by Blacks.
5. Black people must organize themselves into a separate Black political force.
6. Whenever possible, Blacks should buy from other Black businesses.
7. A thorough knowledge of Black history is very important for Blacks today.
8. Blacks and Whites can never live in true harmony because of racial differences.
9. White people can never be trusted where Blacks are concerned.

APPENDIX D

Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate by circling how often you felt or thought a certain way.

  0 = Never   1 = Almost Never   2 = Sometimes   3 = Fairly Often   4 = Very Often

1. In the last month, how often have you been upset because of something that happened
      unexpectedly?..0 1 2 3 4

2. In the last month, how often have you felt that you were unable to control the important things
      in your life?..0 1 2 3 4

3. In the last month, how often have you felt nervous and "stressed"? 0 1 2 3 4

4. In the last month, how often have you dealt successfully with irritating life hassles?... 0 1 2 3 4

5. In the last month, how often have you felt that you were effectively coping with important
      changes that occurred in your life? ………………………………………………….0 1 2 3 4

6. In the last month, how often have you felt confident about your ability to handle your personal
      problems?... 0 1 2 3 4

7. In the last month, how often have you felt that things were going your
      way?... 0 1 2 3 4

8. In the last month, how often have you found that you could not cope with all the things that
      you had to do? ....……………………..0 1 2 3 4

9. In the last month, how often have you been able to control irritations in your
      life?.. 0 1 2 3 4

10. In the last month, how often have you felt that you were on top of things?..................0 1 2 3 4

11. In the last month, how often have you been angered because of things that were outside of
      your control? 0 1 2 3 4

12. In the last month, how often have you found yourself thinking about things that you have to
      accomplish……………………………………………………………………….. 0 1 2 3 4
13. In the last month, how often have you been able to control the way you spend your time?
      …………………………………………………………………………………..0 1 2 3 4

14. In the last month, how often have you felt difficulties were piling up so high that you could
not overcome them?.................................………………………………………….   0 1 2 3 4

APPENDIX E

Inventory of College Students' Recent Life Experiences (ICSRLE)

Following is a list of experiences which many students have some time or other. Please indicate for each experience how much it has been a part of your life over the past month.

How much has it been a part of your life over the past month?
1 = Not at all a part of my life
2 = Only slightly part of my life
3 = Distinctly part of my life
4 = Very much a part of my life

How stressful has it been for you over the past month?
0 = No stress
1 = A little
2 = Somewhat
3 = Very
4 = Extremely

1. Conflicts with boy/friend's/girlfriend's/spouse's family
2. Being let down or disappointed by friends
3. Conflict with professor(s)
4. Social rejection
5. Too many things to do at once
6. Being taken for granted
7. Financial conflicts with family members
8. Having your trust betrayed by a friend
9. Separation from people you care about
10. Having your contributions overlooked
11. Struggling to meet your own academic standards
12. Being taken advantage of
13. Not enough leisure time
14. Struggling to meet the academic standards of others
15. A lot of responsibilities
16. Dissatisfaction with school
17. Decisions about intimate relationship(s)
18. Not enough time to meet your obligations
19. Dissatisfaction with your mathematical ability
20. Important decisions about your future career
21. Financial burdens
22. Dissatisfaction with your mathematical ability
23. Important decisions about your future career

24. Loneliness
25. Lower grades than you hoped for
26. Conflict with teaching assistant(s)
27. Not enough time for sleep
28. Conflicts with your family
29. Heavy demands from extracurricular activities
30. Finding courses too demanding
31. Conflicts with friends
32. Hard effort to get ahead
33. Poor health of a friend
34. Disliking your studies
35. Getting "ripped off" or cheated in the purchase of services
36. Social conflicts over smoking
37. Difficulties with transportation
38. Disliking fellow student(s)
39. Conflicts with boyfriend/girlfriend
40. Dissatisfaction with your ability at written expression
41. Interruptions of your school work
42. Social isolation
43. Long waits to get service (e.g., at banks, stores, etc.)
44. Being ignored
45. Dissatisfaction with your physical appearance
46. Finding course(s) uninteresting
47. Gossip concerning someone you care about
48. Failing to get expected job
49. Dissatisfaction with your athletic skills

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