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COLLEGE CAMPUS RACIAL DEMOGRAPHICS AND DEPRESSION AMONG AFRICAN AMERICAN WOMEN

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Thesis Abstract

COLLEGE CAMPUS RACIAL DEMOGRAPHICS AND DEPRESSION AMONG AFRICAN AMERICAN WOMEN

The purpose of this study was to examine the potential relationship between college campus racial demographics with depressive symptoms in African American females. Additionally, the statistical analysis examined also controlled for perceived social support, religious commitment, past stressful racial events and an index of socio-economic status in predicting depressive symptoms. The study used African American females recruited from a southeastern Historically Black University and participants from a racially mixed university. No support was found for the hypothesis that differences in depressive symptoms would exist across different types of campuses. The same regression model held true for women at both HBCUs and at the racially mixed university. In this model SES, religious commitment, social support from family and social support from a significant other were all significant negative predictors of depressive symptoms. In contrast, a higher reported number of negative racial events across a respondent's lifetime were positively associated with depressive symptoms. A mediation test illustrated that the three social support measures, as a group, fully mediated the negative relationship between religious commitment and depressive symptoms. The study was limited by a small sample size and the lack of inclusion of students from a large predominantly White college campus.

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on the role of other known correlates of depressive symptoms in the general population and specifically within the African American community.

The field of psychology has seen notable research and theoretical efforts to address how African Americans and other racial/ethnic minorities develop a sense of self. The seminal example of such work is the case of William Cross's Nigrescence model. According to Cross, all African Americans have to undergo a process called "Nigrescence". This is the term Cross use to describe the process of "becoming Black." Cross's writings have pointed out that many African Americans believe that their skin color is the primary and sole determinant of their identity. However, he argues that Nigrescence is a much broader process than simply being aware of one's skin color. According to Cross, no one that is born an African American is "truly" Black until they successfully overcome the psychological conflicts and tensions at each stage of his proposed model. Being Black on the outside means nothing if one does not have the "psychological Blackness" to go along with their outer appearance (Cross, 1978).

Cross's (1971) model of development towards "psychological Blackness" is described as the *The Negro-to-Black Conversion Experience.* This experience is a journey from an identity that does not include specific beliefs about one's race, to an identity state in which beliefs about one's race are present and most importantly positive. This model describes how social/environmental factors initiate movement to a more healthy psychological state and authentic identity through a series of four stages, or in some models five stages (Burlew & Smith, 1991 & Cross, 1971).

This journey begins with a person who is socialized to view and think of the world as being non-Black, anti-Black, or the opposite of Black. The person's worldview

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African American history and the history of all oppressed groups can be described as a quest for a liberation that transcends multiple dimensions of life. For African Americans this liberation initially involved physical oppression, and later social, economic and legal oppression. In addition to these more tangible forms of liberation, African Americans have struggled to find liberation from the internal psychological effects of oppression, i.e. the development of an adaptive, internally consistent, and racially-informed identity in the face of discriminatory and oppressive forces.

Within the field of psychology, the concept of racial identity has been put forth to describe how African Americans obtain this sort of psychological liberation during development. Outside of formal psychological research and within the African American community efforts have existed for many decades to promote the same type of positive and resilient sense of self-described in psychological theories of racial identity. Various institutions have been purported to promote such self-understanding, e.g. religious institutions, political parties/movements and colleges/universities. The present study is concerned primarily with how educational environments, e.g. Historically Black Colleges, play a role in determining African Americans' sense of self as a member of a racial minority, and specifically how such environments may mitigate negative, maladaptive emotional processes such as depression. Secondarily, this study will focus

is dominated by majority culture conceptions and cultural values, e.g. Euro-American determinants. The sociological, political, cultural, and psychological conditions that result from this worldview are the same for both lower and middle class Black people. Pre-encounter Blacks are politically naïve and are programmed to have faith in the predominant Protestant ethos, particularly in the concept of work ethic and meritocracy, i.e. that hard work will always without exception yield fair and equitable outcomes. There is an extreme dependency on White leadership and the assimilation-integration paradigm is thought by individuals at this stage to be the only model for cohesive race relations. There is receptivity to discussions or plans of actions; however, such receptivity does not easily or necessarily translate into action at this stage. The person is not committed to a plan of action. He or she becomes the "nice" Black person who wears clothing indicative of Black culture and has an attachment to Black "things." Cross points out that it is possible for a person to progress to this initial stage and then stop developing at this point. Such a situation leads to fixation and stagnation at this stage and the individual does not progress to a more comprehensive psychological identity of himself or herself as a Black individual. Such a developmental situation is reflected in the sophomoric anti-intellectual attitudes of many Black high school and college students (Cross, 1971).

Recent psychological research, which will be discussed in detail later in the text, has explored the links between racial identity stages and various indicators of psychopathology and well-being. Similarly, the present study has a particular focus on depressive symptomatology among African American women. The link between racial identity and depressive symptomatology seems plain – African Americans that fail to develop a mature racial identity would seemingly be more susceptible to symptoms

associated with depression and other psychiatric symptomatology due to the on-going internal psychological dissonance and conflict that an immature stage of racial identity would theoretically be accompanied by. Additionally, there are other well-established links between poverty, racial minority status and, in particular, between being female and suffering with depressive symptoms.

The risk factors for African American women can be conceived as a three-fold problem. First, the society in which African Americans reside is a dominated by a majority Euro-American/White ethnic group that frequently devalues or ignores African American ethnicity and culture. Even when members of the majority culture do not overtly express this degradation, it may still take the form of subtle, symbolic expressions of hostility, making efforts at detecting and resisting such oppression all the more difficult and stressful. In addition, African Americans find themselves at the lower end of the spectrum in regards to the American political and economic continuum, though this trend is slowly changing. Lastly, African Americans are often involved in multiple roles as they attempt to survive economically and advance themselves and their families through mainstream society, i.e. they must live in "two worlds", an African American world and a White majority culture. All of these factors intensify the amount of stress within their lives, which can erode their self-esteem, social support systems and health (Warren, 1994).

Of interest to the present study are African American women, and in particular women that are enrolled in college and university settings. Previous research will be reviewed that has linked racial identity to various positive mental health and social adjustment indicators. These studies demonstrate that mental health problems such as

depression occur more often among the poor, ethnic minorities and women. What, then, is the impact of attending a college or university in which one's racial/ethnic minority group is well represented, if not the majority group, upon depressive symptoms? Also, to what degree are depressive symptoms related to other psychological constructs such as the aforementioned stages of racial identity, perceived social support and religiosity? As will be discussed religiosity is of particular interest in African American communities given its historical role in shaping the worldviews and comprising a significant portion of the social supports system of many African Americans to this day.

Literature Review

Historical Context of Racial Identity

Racial identity has been a topic of interest since the early part of the 20th century. Racial identity theory is a psychological model that explains the complex ego-identity development process for African Americans (Sanchez & Carter, 2005). According to Janet Helms (1990) the contemporary scientific psychology views racial identity as a sense of group or collective identity based on the perception that one shares a common racial heritage with a particular group and that a person's race is more than his or her color or physical features (Helms, 1996). Racial identity is more than simply the racial group that a person belongs to, i.e. African American, Caucasian, Hispanic etc.; rather this concept refers to the internal attitudes that a person holds about their racial group. Such internal attitudes about one's racial group can have a positive or negative valence.

Building off the aforementioned work of William Cross, Helms (1990) asserts that the development of a strong racial identity among African Americans is a gradual process that begins with a negative outlook about one's racial group and proceeds

towards the development of a more positive attitude towards one's racial group. Even in the early 20th century and prior to the theoretical and psychometric interest in racial identity, black activist and scholar W.E.B. DuBois had begun to forcefully argue that the underlying problem of American society was that of the color line, i.e. racism and segregation (DuBois, 1903). The prevalence of racism and the importance placed on skin color is evident throughout America's history, e.g. the Tuskegee Syphilis Study, and Brown vs. Board of Education etc. In Dubois's view, America's historical obsession with skin color has been the gateway to racism and discrimination, which is the source of a whole set of problems that impact the lives of African Americans on a daily basis. Therefore, the beliefs and attitudes African Americans hold about both themselves as an individual and about their membership in an oppressed group are one of the primary modes of resistance towards such forces.

The aforementioned Nigrescence Theory of William Cross (1971) marks the origins of a modern psychological and psychometric construction of racial identity. Cross's model was introduced during the Black Power and Black Nationalism era of the 1970's. During the 1970's, the emphasis in Nigrescence theory was limited to mapping the stages of identity change that accompanied an individual's involvement in the Black Power Movement (Helms, 1990). The Nigrescence theory described the process that one goes through to learn how to accept and affirm their Black identity in an American context by moving from Black self-hatred to Black self-acceptance.

In the 1971 model, five identity stages characterized this process: *Pre-encounter, Encounter, Immersion-Emersion, Internalization and Internalization-Commitment.* During the pre-encounter stage individuals do not want to be associated with any

particular racial group, and may see race as an irrelevant factor in life. Individuals in this stage may also strive to reject their membership in the racial/ethnic grouping of African American or Black. Also during the pre-encounter stage, Blacks have a tendency to denigrate Black culture and values and idealize White culture and values. Individuals in the pre-encounter stage seek the approval of White society. During the encounter stage, the individual has to sort through a wide variety of anti-Black and pro-White messages in order to conclude what direction he or she wants to go in and what message to believe as far as the development of his or her own personal identity (Carter et. al, 1997).

During the immersion-emersion stage the individual seeks to find his or her "Black" self. Some common ways this is done in the current culture is through listening to ethnic music, wearing hip-hop clothing or emerging oneself in Black history and Black culture. In this stage, the individual starts the process of developing a positive self-image, however, he or she also experiences a great deal of internal tension and dissonance. In psychodynamic terms individuals at this stage tend to "split" their internal representations of race into "all good" and "all bad" objects. They may go through a period of viewing all things White as "bad" and all things Black as "good" or vice versa. Whichever, the case the common underlying psychological defense mechanisms is a dichotomous view of race and the values attached to race.

Next, at the internalization stage the individual embraces his or her new African American or Black identity (Carter, 1991). An individual in this stage not only achieves pride in his or her race but also grasps that strengths and weaknesses exist in both Black and White culture (Carter et. al, 1997). At this stage, internal models of one's own race and the "other" race become integrated, and the dichotomous splitting seen at the

immersion-emersion stage is absent. Their "Black" self has emerged and has been embraced. Blacks during this stage become activists, characterizing those who have become involved in social change and civil rights issues. In contrast to Blacks in the pre-encounter stage, Blacks in the internalization stages are typically conceptualized as psychologically healthy. Some theorists have conceptualized the movement from pre-encounter to internalization as reflecting a movement from psychologically illness to psychological well-being (Vandiver, 2001).

The Nigrescence Theory served as the major conceptualization of African Americans' racial identity during the last three decades. Scholars today are still building on this theory. As a result, Cross's original model has been used as the basis for a number of more recent theoretical and psychometric research programs, most notably that of Janet Helms (1990). Helm's Black Racial Identity Scale is the best example, aside from Cross's own work, of a theory of racial identity and a psychometric instrument that has developed from the seminal work of Cross. Both Cross and Helms have developed psychometric instruments to measure racial identity development, though the present study will rely on the Cross Racial Identity Scale due to its superior psychometric properties, which are further delineated in the Methods section of the present paper.

Empirically Observed Correlates of Racial Identity

Modern research has repeatedly identified racism and discrimination as a source of increased stress for African Americans. Racial identity is interwoven in this process, in that when it is highly developed it theoretically provides a person with increased capacity to psychologically endure such discrimination-related stress. In short, many modern theorists have argued that a strong racial identity can be viewed as a coping mechanism

and a protective factor for dealing with daily race-based stressors (Banks, 1970; Burlew & Smith, 1991). What follows is a review of modern psychometric investigation of racial identity.

Parham and Helms studied the stages of racial identity empirically in 1985 to discover specific attitudes that are linked with the different stages. These attitudes are internal/psychological as well social in nature. For example, Parham and Helms (1985) concluded, based on their research data, that the pre-encounter and immersion-emersion attitudes were associated with low self-actualizing tendencies, low self-regard, and high anxiety. In this same study, encounter attitudes were associated with low anxiety, high self-actualization, and high self-regard (Parham & Helms, 1985).

Additionally, in Thomas Parham's doctoral dissertation, conducted three years prior to the Parham and Helms 1985 study, he found that pre-encounter and immersion-emersion attitudes were associated with feelings of inferiority (Parham, 1982). Helms and Parham took their research a step farther. They concluded in two different studies that pre-encounter and immersion/emersion attitudes are associated with greater levels of distress. For example, they found that denial of the social import of one's Blackness (pre-encounter attitudes) and the idealization of one's racial heritage (immersion/emersion attitudes) were associated with lower levels of both self-esteem (Parham and Helms, 1985a) and self-actualization (Parham and Helms, 1985b), as well as higher levels of anxiety, feelings of personal inadequacy and hypersensitivity.

Pre-encounter attitudes have also been found to be associated with lower levels of general well-being (Carter, 1991; Pyant & Yanico, 1991) and less participation in cultural activities among college students (Mitchell & Dell, 1992). Therefore, it can be concluded

that each stage of racial identity development is linked to the propensity to experience different psychological states, with some stages associated with more maladaptive mental and behavioral tendencies.

Various research studies have also shown that racial identity has significant associations with mental health variables. According to Baldwin, those with a positive racial identity should also experience higher self-esteem (Baldwin, 1984). Several studies have concluded that African Americans with a strong and positive racial identity are likely to have better mental health status than those whose racial identity is at a "lower" level (Thomas & Thomas, 1971). A study conducted by Martin and Nagayama-Hall (1992) on feminism, racial identity and locus of control among Black adult women found that encounter attitudes were related to an external locus of control, specifically a strong belief in chance and luck. These Black women tended to question legitimate authority as well. Martin and Nagayama-Hall also found that internalization attitudes were positively related to internal locus of control (Martin & Nagayama-Hall, 1992).

A study by Looney (1988) concluded that ego development and pre-encounter attitudes were inversely related; that is, ego strength was weak when pre-encounter attitudes dominated one's worldview. Furthermore, research by Taub and McEwen (1992) examined how racial identity attitudes in Black and White women were related to beliefs about personal autonomy and to measures of interpersonal maturity. For Black women, they found that high pre-encounter attitudes were associated with low levels of autonomy and difficulty with interpersonal relationships. Encounter and immersion/emersion attitudes were consistent with emotional independence, low self-esteem and an inability to accept cultural difference.

Overall, these results suggest that pre-encounter and immersion-emersion racial identity statuses generally are associated with negative mental health statuses. The encounter attitudes appear to have a more mixed set of findings, while internalization attitudes appear to be associated with positive mental health variables.

Racial Identity and Group Identification

Racial group identification refers to an individual's psychological attachment to a social category based on race, skin color, or a common history of oppression and discrimination attributable to skin color. Individuals purport to share an implicit understanding of what it means to be a member of the designated racial group (White & Burke, 1987). Not all possible members identify with the group, nor do all members identify equally. Members may differ in their willingness to identify with specific issues or aspects of the group, and their differences are theoretically related to the salience of their identities (Sanders-Thompson, 1999).

The ability to identify with a specific group of people allows a certain level of closeness to be formed between that person and the group they identify. According to Sanders-Thompson in 1991, there are three separate categories for which identification can be made. These categories are identification with physical features, identification with socio-cultural elements, or psychological identification (Sanders-Thompson, 1991). An example in the physical feature category would include two light-skinned African Americans being better able to identify with each other as compared to a light skinned African American and a darker skinned African American. Two light-skinned African Americans have a physical feature in common which in this case would be skin color. Having a physical feature in common may also lead them to realize they have similar

experiences such as being told they are not "Black" enough or that they feel they do not fit in with darker skinned African Americans.

In the socio-cultural category, identification would be based on knowledge of certain types of music, style of dress, methods of communication, etc. that is specific to that particular group. If one does not speak or dress like the others in that group, then naturally they would have a difficult time identifying with those in the group and being able to fit in. On the other hand, if a group of people spoke alike or dressed alike, then that would be the foundation for group identification. They would have enough in common to begin the process of identification.

Psychological identification would be based on ways those in the group think and perceived different aspects of the world and society as a whole. People who think along the same lines are better able to get along because they do not have to battle against opposing thoughts and ideas that may be introduced by someone who is not able to identify with them. Having different categories of identification provides one multiple opportunities to find a group that they can best identify (Sanders-Thompson, 1991).

The role of group identification is to aid a person in finding out whom they are and how they feel about themselves (Greensberg, Solomon, & Pyszczynski, 1997). Group identification relates to racial identity because this process gives those going through the stages of racial identity a model to work towards or even to which they can attempt to conform. Without having group identification, those going through the pre-encounter and encounter stages would be left to roam around without having an example of what they are trying to accomplish. In other words racial identity development does not occur in a social vacuum, surrounding this process are various stimuli associated with the African

American social group. Group identification and racial identity work hand in hand in assisting a person in finding their true "Black" self. Those who have completed the stages of racial identity are better able to identify with a particular group as compared to those who are just beginning the process. This importance of group identification has relevance to the present study in that when an African American individuals is living in an area in which their own racial group is poorly represented, e.g. a predominantly White college, they may both tend to under or over-emphasize the salience of race, depending on which stages of racial identity they are working within. Thus, the availability of same-race individuals, i.e. a racial group, to which one can identify may facilitate racial identity development and in-turn facility psychological development and wellness.

Women and Depression

Depression is one of the most prevalent forms of psychopathology in the general population. However, females suffer from depression at higher rates than males. Females are more than twice as likely as males to suffer from clinical depression in the United States. Furthermore, cross-national studies have also found rates of major depressive disorders to be higher in women as well (Kornstein & Clayton, 2002). This pattern translates into approximately one in every five women becoming depressed to a degree that is maladaptive at some point during her lifetime. There is evidence from several longitudinal studies that women have longer episodes of depression than do men and are more likely than men to develop a chronic course (Winokur et. al, 1993). Most of these women will also suffer from recurrent episodes (Gillhan, 2003). The highest rates of depression are seen in women during their reproductive years, which can span from the age of twelve to the late forties or early fifties (Kornstein & Clayton, 2002). A great deal

of depressed women will become a mother to at least one child. Depressed mothers have a direct impact on the psychological well-being of their children. Older children and adolescents whose mothers are depressed are five to six times more likely to develop depression than their peers (Downey & Coyne, 1990).

The most commonly used clinical definition of depression comes from the *Diagnostic and Statistical Manual of Mental Disorders – 4th Edition – Text Revised* (American Psychiatric Association, 2000). The DSM-IV-TR defines depression, or more properly a Major Depressive Episode, as involving the following symptoms: prolonged depressed mood, anhedonia, decreased energy, psychomotor agitation or retardation, difficulty concentrating or thinking productively, feelings of guilt/shame, lowered sense of self-worth, sleep and appetite disturbances, thoughts of death or recurrent suicidal ideation. To meet DSM criteria, an individual must have at least a depressed mood or anhedonia, and must have at least five of the other symptoms listed above. These symptoms must have lasted for at least 2-weeks. An episode of depression that goes untreated typically lasts 6 months or more (American Psychiatric Association, 2000).

Depression in adolescence and young adulthood is a particular area of concern for clinicians and researchers (Lewinsohn et. al, 2003) with an estimated 8.3% of the population of individuals in this age group being affected (Birmaher et. al, 1996). Weissman and colleagues (1999) reported that depression beginning in adolescence persists, recurs, and often leads to more serious illnesses in young adulthood. Depression has very high rates of comorbidity with other DSM-IV-TR disorders. The lifetime comorbidity rates of depression with other disorders have been estimated up to 33% in adolescents and young adult samples (Lewinsohn et. al, 1993). According to the DSM-

IV-TR, depression in adolescents is most often comorbid with Anxiety Disorders, Disruptive Behavior Disorders, Attention-Deficit Disorders, Substance-Related Disorders, and Eating Disorders. Depression in adult women is most often comorbid with phobias, generalized anxiety disorder, panic disorder and eating disorders, whereas depression in adult men is comorbid with substance use disorder (Reigier, Burke & Burke, 1990).

The presence of adolescent depression is of particular concern because this has been shown to predict future adjustment problems in the areas of marriage, dropping out of school, unemployment status, involvement with drugs, delinquent behavior, being arrested, being convicted of a crime, and being in a car accident (Kandel & Davies, 1986). Similar to the case for adults, one of the most robust risk factors for depression in adolescence is simply being female. Diagnosis of a Major Depressive Episode occurs twice as often in adolescent females than in similarly aged males (American Psychiatric Association, 2000).

Two specific factors have been highly correlated with the prevalence of depression in women. These factors are self-esteem and social class. Research indicates that low self-esteem is significantly associated with the experience of depression and the association is stronger among females than males (Altman & Wittenborn, 1980). Additional studies have found that low self-esteem-related cognitions such as negative evaluation of self arise concomitantly with an episode of depression. Although depression-related cognitions did not predict future depression, they did predict improvement. Depressed individuals with more negative cognitions were significantly less likely to improve during the follow-up period (Lewinsohn et. al, 1981).

Many attempts to explain this discrepancy have been offered. Paykel (1991) states that this difference is not due to women simply seeking help for depression at higher rates than men do. Rather, Paykel argues that a better explanation is that men and women acknowledge and express underlying negative mood states differently. Two additional possible explanations for the higher prevalence of depression among women are that females have a higher tendency to evaluate themselves negatively when stressful life events occur. Additionally, there is evidence that environmental stressors, pressures and responsibilities are different for women (Allgood-Merton, Lewinsohn & Hops, 1990 & Moran & Eckenrode, 1991). In regards to the latter hypothesis, Paykel (1991) points out that research shows most of the gender difference occurs among married women during their young adult years. This may hint at a difference between the amount of social support men and women provide in their daily lives, with women providing much larger amounts of social support than men, i.e. child and spousal support. This scenario would lead to women have real higher rates of depression due to different stress levels than men.

In addition to increased prevalence among women, depression is found more often in people in lower social classes and working class women. African Americans are disproportionately represented among both of these groups, though research on the prevalence rates of depression among African Americans have yielded mixed results (Brown, 1987, Munford, 1994. The overrepresentation of African Americans in the lower socio-economic strata can be partially explained because ethnic minorities including African Americans face a range of current and historical barriers to educational

attainment and successful employment, particularly lucrative employment opportunities (Horton, Thomas & Herring, 1995, U.S. Census Bureau, 1999).

African Americans are also at increased risk of physical ailments (Saab et. al, 2000), and are more likely to experience prejudice and discrimination (Yinger, 1995). While the stress associated with lower income levels may have a direct impact on depression, these other factors specific to African Americans and confounded with class status may influence the prevalence of major depression in minorities (Weissman, 1997). Prevalence rates of depression vary greatly across different cultures, ranging from 1.5% to 19.0% (Weissman et. al, 1996). The wide range of the prevalence rates for depression can be explained by taking into account socioeconomic status and differing levels of exposure to poverty. Socioeconomic status and exposure to poverty are statistically linked to race and ethnicity in U.S. demographic data (U.S. DHHS, 2001). Therefore, these findings would appear to suggest that minority group members are likely to be at a higher risk for depression than people who are White (Plant & Sach-Ericsson, 2004).

Socioeconomic Status

Whether socioeconomic status is defined by occupational, income, or educational level or a combination of these, there is strong evidence that rates of depressive symptoms are significantly higher in persons of lower socioeconomic status (SES) than in persons of higher social class (Munford, 1994). In a study by Warheit et. al (1973), an inverse relationship between depression scores, as measured by a depression inventory and annual income was one of the most statistically significant findings in the study. Also an inverse relationship was also found between higher depression and low SES scores (Warheit et. al, 1973). Furthermore, Brown (1983) concluded that the prevalence of

depression was highest in working-class women. In this study working-class women were found to be about five times more likely to develop a psychiatric disturbance when compared with women of other social classes. Also, women from low SES backgrounds and women in minority groups were found to be more susceptible to mental health problems because of added stressors they may be forced to contend with in their daily lives (Belle, 1984).

Despite the evidence for a low SES – higher depression linkage, as mentioned, the prevalence studies of depression in the general population have yielded widely varying results in regards to depression rates among African Americans. While the data appears clearer for depression occurring at higher rates among women, some research has found that depression occurs at equal rates across racial groups, e.g. Kessler (1995); and other research has found that African Americans have lower prevalence rates than other U.S. ethnic groups (Riolo, Nguyen, & Greden, 2005). Such findings must be viewed alongside the fact that there is relatively little research into depression among African Americans, and in particular among African American women (Carrington, 2006). While there may be mixed results in regards to how prevalent depression is among African Americans, depression has been proven to be linked to lower socioeconomic status, and African Americans are overrepresented among this demographic group. Also, even if Africans Americans do, in fact, have lower rates of depressive symptoms, significant evidence still exists that they face greater obstacles to receiving accurate diagnoses or effective treatment (Carrington, 2006).

Psychological Well-Being of African American Women

Being an African American woman in the world today means being a member of two oppressed groups – women and African Americans. As a result, African American women are forced to deal with racism and sexism on a daily basis, which also leads to prejudice and discrimination (Pyant & Yanico, 1991). Some scholars have suggested that possessing these two negative status positions places the Black woman at the bottom rung of the social status ladder in our society. These two positions make it difficult for one to validate and incorporate a positive sense of self-worth and high self-esteem (Gray & Jones, 1987).

Racism and sexism are not isolated factors influencing the psychological well-being of African American women. These factors can also be paired with social, economic and educational limitations that create more pressures on the Black woman (Gray & Jones, 1987). Having to shoulder the burden of both racism and sexism along with other stressors essentially leads to a negative impact on the psychological well-being of the Black woman. In a study on psychological well-being, Bell (1980) found that Black women when compared to men and White women reported the lowest level of well-being of either gender or race. More than half of the Black women surveyed (63%) reported moderate to severe levels of distress. Being that Black women are marginalized in society by being both Black and female adds considerable stress in and of itself (Munford, 1994). Again, it is important to remember that, regardless of race, women reported more psychological distress than men, with depression being the most common source of distress for these women (Veroff, Kulka & Donuvan, 1981).

Social Support and African American Women

Social support is an important buffer against life stressors. The presence of one's family and friends as he or she ventures down this path called life is an essential element in one's overall psychological wellness. Social support has been associated with better overall well-being (Chatters, 2000; Raymond, Rhoads, Raymond, 1980), self-esteem (Ellison, 1993; Hughes & Demo, 1989; Miller, Moen, & Dempster-McClain, 1991) and life satisfaction (Levin, Chatters & Taylor, 1995) with less depression (Ensel & Lin, 1991 & Hong & Seltzer, 1995) and fewer alcohol problems (Barrera, Chassin & Rogosch, 1993).

Social support, as defined in the present study, has three basic categories: family, friends & significant other. However, Blacks have shown a greater satisfaction from kin involvement than from friends and significant other involvement. Furthermore, kin involvement in Blacks contributed to more positive affect whereas kin involvement contributed to more negative affect in Whites (Raymond, Rhoad, & Raymond, 1980; Griffin et. al, 2006). In a study conducted by Hays and Mindel (1973), they found that Blacks saw their kin more often, rated the importance of these relationships higher and received more childcare from kin than did Whites.

Lastly, social support is a buffer against suicide in African American women. Both single and married African American women tended to rely on extended family and friends for various types of support (Robinson-Brown & Gary, 1985). The social support buffer appears to play a strong role in the coping of African American women. As a result, African American women have significantly low suicide rates compared to the overall rate of men and other ethnic groups of women in the United States. In 1996, for

every 100,000 people, African American women committed suicide at the rate of 1.90, compared to the national average of 11.41 for men and women and 4.42 for women of all ethnic groups (National Center for Injury Prevention & Control, 1999).

Religion and Spirituality in African American Women

The importance of the African American church and religion can be traced back to the days of slavery. Religion has been defined as an institutionalized system of attitudes, beliefs, and practices through which people manifest their faith and devotion to an ultimate reality or deity (Kelly, 1995). Throughout much of American history, religious institutions have occupied an important position in African American society (Lincoln & Mamiya, 1990). During the days of slavery, religion was used as a coping mechanism to deal with the hardships that came along with being enslaved. African American women during slavery were able to transcend and transform their experiences through a spirituality that provided hope in personal and community relationships. Enslaved women embraced a religious experience that affirmed the presence of God in their struggle (Musgrave, Allen, & Allen, 2002).

The African American church and religion are still used as a source of strength today for African American women. God is seen as a deliverer from unjust suffering and the comforter in times of trouble. The African American church provides African American women spiritual renewal and empowerment (Musgrave, Allen & Allen, 2002). Today, the African American church still constitutes the central institutional sector in many African American communities (Richardson & June, 1997).

The significance of religion is not only important for spiritual development it also plays a key role in psychological development as well. On average, the baseline rate of

religious involvement for African Americans is higher than that of the general U.S. population with African American women demonstrating higher rates of religious participation, commitment and spirituality than African American men (Jagers & Smith, 1996). Overall, African Americans have been found to report higher levels of attendance at religious services than Whites (Johnson & Matre, 1991), and to read more religious material, monitor more religious broadcasts and seek spiritual comfort through religion more often than Whites across their lifespan (Constantine, Lewis, Conner & Sanchez, 2000). Geographical region also plays a role in religious involvement in African Americans. Religiosity levels appear higher in the southern United States across racial/ethnic groups. This is a region in which African Americans are overrepresented as a proportion of the total population (Ellison & Gay, 1990).

African Americans are often taught at an early age that religion and the belief in a higher power are major parts of their foundation. As a result of these teachings, African American college students may view religious and spiritual issues as an integral part of their self-identity (Spencer, Fegley, & Harpalani, 2003). In a study conducted by Mattis (1997), she found that African American college men and women tend to score higher than their European American counterparts on measures of spirituality and religious beliefs, including the belief in the unique power of God. The power of a spiritual foundation is also present in the classroom. Pronounced pro-religious attitudes have also been found to be positively related to academic performance and success among African American college students (Johnson et. al, 2003).

Religion and Mental Health

The relationship between religion and mental health has been studied a great deal by psychologists in the last twenty years, but has been of interest in the Western world for at least the last century. Numerous epidemiological and clinical studies have documented the influence of religious affiliation and religious involvement on mental and physical health outcomes (Koenig, 1998). Recent research on the relationship between religion/spirituality and depression has concluded that there is modest but significant association between higher religious commitment and lower levels of depression (Smith, McCullough, & Poll, 2003 & McCullough & Larson, 1999).

When Koenig, McCullough, and Larson (2001) examined the relationship between minor psychiatric symptomatology and religiosity, they were able to conclude that individuals who reported no religious affiliation were at an elevated statistical risk for depressive disorder and depressive symptoms. In contrast, people who are involved frequently in religious community activities and who highly value their religious faith for intrinsic reasons may be at reduced risk for depression. Evidence also exists from research that religious involvement plays an important role in helping people cope with the effects of stressful life circumstances and religious involvement is negatively associated with fatal and nonfatal suicidal behavior (Koenig, McCullough, & Larson, 2001).

Furthermore, research has probed into the relationship between religion and addictive disorders. In a study conducted by Gorsuch (1995), he concluded that higher religious commitment was negatively correlated with substance use or abuse. Such findings are usually attributed to the common presence of religious prohibitions of excess

substance use and to the presence of anti-abuse peers among religious believers. Gorsuch argues that such findings hold true assuming that these religious influences occur within a nurturing and supportive religious context (Gorsuch, 1995).

Gorsuch's admonition here is important, because it hints at the underlying mechanisms by which religion is a protective mental health factor. Religious participation in particular may be a positive predictor of mental health particularly when it occurs in a context of received social support from family, peers and religious leaders. Religion may help in ways independent of providing social support as well, e.g. prayer/meditation and religious beliefs may have a direct impact on mental health independent of social support.

Religion and Psychological Well-being

Short of predicting low levels of formal psychiatric impairment, religious involvement in religious activities plays an important role in the subjective psychological well-being of college students. Specifically, well-being, health (both physical and psychological), and stress have been found to be significantly positively related to religiosity (Johnson et. al, 2003). Several studies examining religiosity in college students have provided support for this assertion. For example, Levin and Taylor (1998) found that high levels of religious involvement (e.g. church memberships, church attendance, and subjective religiosity) had a significant negative relationship with psychological stress and a significant positive relationship with well-being (e.g. life satisfaction, happiness, and mental health).

Frankl and Hewitt (1994) also conducted a study using college students and assessing religious participation. They were able to conclude that college students who were affiliated with campus faith groups had higher levels of physical health and

psychological well-being than their non-affiliated peers. These affiliated students also displayed significantly lower levels of stress (Frankl & Hewitt, 1994). Lastly, Francis and Evans (1996) found that there was a positive correlation between the frequency of personal prayer and the level of perceived purpose in life among both churchgoing and non-churchgoing groups (Francis & Evans, 1996).

It has recently been discovered that counseling students who expressed spirituality through religious beliefs had greater spiritual health and protection from stressful events than students who identified themselves as spiritual but not religious (Graham et. al, 2001). Additionally, students with higher levels of religiosity have been found to be more likely to have higher self-esteem and more assets for healthy growth (Knox et. al, 1998). These studies were able to show that religiosity have a positive effect on various aspects of a student's life, from health and well-being to stress. Given the prevalence of religious commitment and religious ideation among African Americans and the links between religiosity and mental health just described, the role of personal religiosity must be accounted for in understanding symptomatology such as depression, particularly in African Amerian samples.

African Americans and Higher Education

In recent years, the number of African Americans receiving education has increased. This is evidenced by statistics gleaned from the U.S. Census in 2000. By 1997, there was no longer a gap in high school graduation rates between African Americans and Whites. The number of African Americans enrolled in college in 1998 was 50 percent higher than the number enrolled a decade earlier. By 2000, 79% of African Americans age 25 and over had earned at least a high school diploma and 17% had attained a

bachelor's or graduate degree. These rates are in comparison to 84% and 26%, respectively, for Americans overall (U.S. Census Bureau, 2001). One notable historical asset for the African American college student has been the existence of Historically Black Colleges and Universities. These institutions have provided a place for many African American students to earn degrees, while ostensibly maintaining a positive sense of racial pride and racial identity. Before proceeding, the origins of such institutions are worthy of note.

This section of the paper will be devoted to reviewing why there was a need for Historically Black Colleges and Universities. By the time slavery ended, most slaves were still not allowed to learn how to read and write. However, the desire to become literate was still present when slavery concluded. Literate Blacks during that time were held in much higher regard than those who were not taught to read and write while they were still enslaved (Anderson, 1988). Blacks during that time felt education was the key component to surviving in the new found "free" White world. Even in today's world regardless of skin color, education continues to be viewed as an important element in surviving and accomplishing success. An increase in the collective desire among Blacks to obtain a formal education was observed around the end of the slavery era, this left the question of how to educate large numbers of Blacks at one time. Prior to this point in American history, Black slaves were educated, if at all, one at a time by their slave masters or slave masters' children who were generous enough to teach them to read and write (Neiman, 1994). As a result of the ensuing efforts to create formal mechanisms to educate ex-slaves in more traditional school/group formats, illiteracy rates decreased from 90 percent to 30 percent fifty years after the slaves were freed (Jones, 1969).

Before Abraham Lincoln issued the Emancipation Proclamation in 1863 and before Congress created the Bureau of Refugees Slaves, free Blacks had already begun working to create systems of instruction and early schools that would later be utilized to educate ex-slaves, free blacks and their children. Early Black schools were established and supported largely through African Americans' own efforts. One of the first of these schools was opened in Fortress Monroe, Virginia in September 1861 under the leadership of Mary Peake who was a Black teacher during this time (Anderson, 1988). The effort to educate Blacks during this time spread to Missouri. The American Missionary Association, an organization committed to Christianizing and educating Blacks, cooperated with the Western Sanitary Commission, the United States Army and Black leaders in establishing a system of free schools in St. Louis in 1864 (Neiman, 1994). Eventually the concept of forming schools that would be used to educate Blacks at a post-secondary level gained broader acceptance. It was now time to educate Blacks in a way that would help them to become something other than manual laborers, which were the primary fields for which Blacks had traditionally received training up to that point.

The history of Historically Black College and Universities began in Pennsylvania in 1837. The first HBCU was Cheyney University. The second HBCU was Wilberforce University which was founded 21 years later in Ohio. The first HBCUS were established in the North and were the products of independent religious institutions or philanthropic Christian missionaries (Education Encyclopedia, 2008). Although the first all African American universities were founded in the North, HBCUs made their strongest mark in the American South after the Civil War and especially after the introduction of legal segregation. With African American students barred from White schools and universities

throughout the South, private institutions were founded to meet the demand for education among descendants of former slaves (Friedman, 2007).

Historically Black Colleges and Universities have been crucial in shaping the minds and future of African American professionals. For more than 160 years, these important institutions have educated a population that has lived under several legal, educational, economic, political and social restrictions. Early HBCUs were originally established to train teachers, preachers, and other community members to remedy the despairs of slavery that scarred African American (Education Encyclopedia, 2008). Among those educated at HBCUs are Reverend Martin Luther King, Jr, Thurgood Marshall and W.E.B. Dubois just to name a few (Friedman, 2007).

HBCUs have accomplished great things in the area of educating future African American leaders. By 1950, HBCUs were responsible for serving 90 percent of African American students in higher education. Furthermore, HBCUs has produced 75 percent of all African American Ph.D.'s, 75 percent of all African American Army officers, 80 percent of all African American federal judges, and 85 percent of all African American physicians. In 2001, HBCUs served 14 percent of all African American students enrolled in college but were annually responsible for 26 percent of African American baccalaureate degrees. Today there are over 100 HBCUs. The majority of HBCUs are located in the southeastern states, while four are located in mid-western states, one in Delaware and one in the Virgin Islands (Education Encyclopedia, 2008 & Friedman, 2007).

Historically Black Colleges and Universities, hereafter referred to as HBCUs, have a "special mission." To a large extent that mission is to educate students that might

not be able to attend college otherwise because of social, financial, or academic barriers. These institutions pride themselves in their ability to take financially disadvantaged, academically under-prepared Black students and correct their academic deficiencies. By correcting their academic deficiencies, Black colleges seek to graduate students who are equipped to compete successfully in graduate schools or in their chosen professions (Blackwell, 1987). On average, African American students who attend Predominantly White Institutions have been shown not to perform as well academically as their White counterparts (Allen, Epps, & Haniff, 1991). Furthermore, Black students' intellectual gains and learning outcomes are more pronounced on Black majority campuses than on White majority campuses (Allen, 1985). The advantages for Black students on a Black majority campus extend outside the intellectual boundaries. Allen (1992) found that Black students on Black campuses display more positive psychological adjustment and greater cultural awareness/commitment than Black students on White campuses. In general, the "fit" between African American students and higher education seems more favorable on HBCU campuses than on Predominantly White Institutions, hereafter referred to as PWI's.

Students that attend HBCUs experience some positive side effects that they may not experience at PWI's. These positive side effects will continue to affect their lives well after they graduate from the HBCU. Students who attend HBCUs have to deal less with racial discrimination, which is an experience Black students would be more likely to experience at a PWI. The experience of racial discrimination is likely to negatively influence the psychosocial development of African American college students.

In addition to differences in exposure to discrimination, racial and cultural identity development is influenced by college environmental factors (Allen, 1992 & Cokley, 1999). As a result of this, students at HBCUs have often been assumed to exhibit more awareness of their racial and cultural identity than students at Predominantly White Institutions (Baldwin, Duncan & Bell, 1987). Another benefit of attending a HBCU is that experiences unique to African Americans are more likely to be addressed in the educational setting.

McEwen, Roper, Bryant and Langa (1990) suggested that additional issues specific to the African American experience should be incorporated into theories of student development theories. McEwen et al. (1990) specifically note the following issues and relevant research findings in this regard: a) the unique history of slavery in this country and its psychological effects (Stuckey, 1987), b) the impact of a racially hostile environment (Feagin, 1996), c) the intrapsychic struggle of reconciling two identities (DuBois, 1903), d) and the close kinship between African and African American culture (Baldwin, 1984). Furthermore, Berger and Milem (2000) found students at church-affiliated Black colleges developed significantly higher self-ratings in three domains of self-concept. These three self-concepts were psychosocial wellness, academic, and achievement orientation than do students attending similar religious-affiliated Predominantly White Institutions. Additionally, Pascarella et. al (1997) concluded that HBCU students are at least equal on most cognitive development dimensions, but evidence suggest that HBCU students perform better on writing skills tests than Black students attending Predominantly White Institutions.

In a study conducted by Baldwin, Duncan, and Bell (1987), they assessed the construct of African American self-consciousness among Black students from an HBCU and a PWI. For this study, African American self-consciousness was operationally defined as the pro-Black beliefs, awareness, knowledge and practice of African philosophy and culture by African American. They concluded that students at the HBCU exhibited a higher degree of African self-consciousness than their counterparts at the PWI. This same study also found that higher African self-consciousness correlated significantly with positive psychological functioning.

Overall, HBCUs make important contributions to American higher education because of the educational powerful environment they provide to students (Berger, 1997). These environments generally do a better job of promoting growth and development for African American students than do PWIs in a wide range of student outcomes including cognitive development, academic achievement, educational aspirations and college satisfaction (Allen, 1992 & Bohr, Pascarella, Nora, & Terenzini, 1995).

There is putatively something motivating and exhilarating about attending a university where one is able to see other African Americans educating themselves to become future doctors, lawyers and engineers. More to the present purpose, HBCUs also appear to foster increased subjective well-being and positive mental health for African American students. The present study seeks to test the degree to which this is true for Black women, and whether the apparent benefits of an HBCU environment can alternatively be explained as a function of other psychosocial variables, such as, racial identity, perceived social support, coping style and religiosity.

Research Questions

The present study will examine whether the racial demographics of a college campus have a discernable impact upon levels of depressive symptoms among African American female students. The study will additionally examine whether other variables shown to be linked closely to African American mental health and well-being, e.g. socio-economic status, religiosity, social support, racial identity better explain any observed differences between campuses in depressive symptomatology. HBCUs have been shown in research to be associated with various positive academic and mental health factors for African American students. Also, racial identity has been shown to be associated with a variety of positive indicators of mental health or subjective well-being. What is not clear is why attending a HBCU is linked with these positive indicators, or whether such relationships hold true for women in particular. Research has yet to shed light on whether the apparent positive impact of attending a HBCU is better explained by differences in individual-level traits. Therefore, the current study will examine directly whether the aforementioned covariates predict depressive symptomatology, and whether their independent effects attenuate any observed differences between campuses to non-significant levels. If found it would suggest that the racial campus demographics are better explained as a function of variation in trait-level individual differences. One of the main goals of this study is to determine if depression varies across college campuses. By the end of this study that question will be answered.

In addition to exploring variation in depressive symptom across different types of college campuses, the study will also explore whether the predictors of depression are consistent across college campuses. Regardless of whether there are differences in

depression across campuses, do the same factors correlate with self-reported depressive symptoms across campuses. This will be accomplished through exploring campus type as a moderator variable in regression analysis.

Hypotheses

1. Scores on the Center for Epidemiologic Studies Depression Scale (CES-D) are predicted to be lower for African Americans females who attend HBCUs than for African American females who attend a PWI.
2. Prior research suggests that the internalization racial identity attitudes should be related to better mental health statuses, therefore the two scales that measuring both a Multiculturalist and Black Nationalist type of internalization are predicted to be negative predictors of depression. In contrast, and based on prior research, the three pre-encounter scales and the immersion-emersion scales are predicted to be positive predictors of depression.
3. Based on the strong evidence for the role of SES in depression rates, SES should be a significant negative predictor of depression.
4. a) The study will utilize three social support scales, significant other, friends and family. Based on prior research, all forms of social support should emerge as a significant negative predictor of depression with family support being the most significant.

   b) Religious commitment should exhibit a negative zero-order correlation with depression, though its role is expected to be partially or fully attenuated by the role of social support when both are present in a regression model.

5. Prior research suggests that the experience of racism and discrimination, even if subtle or symbolic, has an impact on the mental health of African Americans. The present study will assess the participant's prior experiences in this area, and a higher frequency of perceived history of negative racial events is predicted to be a positive predictor of depression.
6. The study will also explore whether the campus type moderates the role of the various predictors included in the study. Theoretically, campus type should not moderate the role of SES and social support factors, in those factors should exhibit a strong relationship with depressive symptoms across social contexts. However, there is a logical basis to predict that campus type, regardless of whether different depression levels are observed across campuses, may moderate the effect of racial identity variables, and the role of participants' past experiences with negative racial events. In particular the role of assimilationist beliefs at the Pre-Encounter stage may have differential relationships with depression across different campus types with it serving as a protective factor in a PWI setting, and as a risk factor in an HBCU setting, i.e. assimilating in a PWI environment may bring increased social support, though in the long-term may have liabilities. Also, Internalization may predict depression differentially across campuses, i.e. Afrocentric Internalization may only be a protective factor on HBCU campuses, whereas Multiculturalist internalization may be a protective factor only on PWI campuses. Lastly, immersion-emersion attitudes are predicted to have a positive relationship with depression regardless of

campus type. These attitudes would seem to be fundamentally linked with emotional distress in either environment.

Methods

Participants

The participants for this study were African American females currently enrolled in a college or university. Participants were recruited from two different types of campuses. First, participants were recruited from an HBCU (Alabama State University and Tuskegee University) and secondly participants were recruited from a "mixed" race or marginal PWI campus (Auburn University Montgomery or AUM). Very few participants from Tuskegee University ultimately took part in the study, and the majority of the HBCU participants were ultimately students at Alabama State. The "mixed" university, AUM, is approximately 65% White and 35% African American, whereas the HBCU campuses are approximately 95-97% African American. All of the universities in which recruitment occurred are located within the southeastern United States. These two samples allowed for comparisons between a HBCU and a university, which is technically a PWI through although it has a strong representation of African Americans on campus at approximately 35%.

The final sample consisted of 111 African American women, with a mean age of 24.3. In terms of the participant's educational category, 8 were freshman, 7 were sophomores, 33 were juniors, 27 were seniors, and 36 were graduate students. Forty-four of the participants attended the PWI college (Auburn University Montgomery), and 67 attended HBCUs.

Procedure

Auburn University Montgomery's Institutional Review Board approved the research procedures prior to data collection. Additionally, all research methods and practices conformed to the American Psychological Association's Code of Ethics. The principal investigator attended various college classes, in which the instructor had granted permission for the investigator to recruit participants. Recruitment of participants was performed by the means of a recruitment sheet that included the informed consent statement and the web address for participating in the study. After passing out the recruitment forms the principal investigator briefly explained the nature of the questionnaires the participants were being asked to complete and what it is the participants are being asked to do. For participants recruited from courses, the investigator explained whether their instructor would give academic credit for their participation in this research.

All research surveys were administered over a secure-encrypted web page. No IP addresses were collected as part of participation in the research. The account on which the responses are stored is owned by the researcher and is encrypted and password protected. Written on the recruitment form was a web address for the participants to use in order to participate in the study. At the website, participants were able to re-read the informed consent statement, print a copy of the informed consent for their records and click a selection box labeled as signifying their electronic signature consenting to participation. The protocol then proceeded to successive pages in which the research instruments were presented. The next-to-last page of the web survey asked the participants to complete the demographic and background information questions. On the

last page of the protocol included a question that requested the participant's student identification number and instructor's name for those students who were receiving academic credit for participation in the study.

All students regardless of race had the opportunity to participate in the research during recruitment. Any students in a class who were not African American females were given the opportunity to complete a research protocol from an alternate study. All students in a class being offered extra credit for participation had the opportunity to opt out of participating in the research at anytime and still earn the extra credit by completing a reading provided by the researchers or by the instructor followed by comprehension questions. This alternative reading could be completed to earn academic extra credit in lieu of participating in the research.

Measures

Center for Epidemiological Studies Depression Scale – (Radloff, 1977) see Appendix A

The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) is a 20 item self-report symptom rating scale used to measure depressive symptoms, with an emphasis on the affective, depressed mood component of depression. The CES-D was developed for use in studies of the epidemiology of depressive symptomatology in the general population. Respondents indicate the frequency of occurrence of each symptom over the past week on a 4-point Likert scale. On this scale, 0 = rarely or none of the time (less than one day), 1=some or a little of the time (1-2 days), 2=occasionally or a moderate amount of time (3-4 days), and 3=most or all of the time (5-7days). Scores range from 0 to 60, with higher scores indicating increased symptomatology. The scale contains 20 symptoms, any of which may be experienced occasionally by healthy people;

seriously depressed person would be expected to experience many but not necessarily all of these symptoms. The internal consistency for this measure was .85 in the general population and .90 in the patient sample (Radloff, 1977). In the present study the Cronbach Alpha for the CES-D were observed to be .95, see Table 4.

Although this scale was designed for community-based research not clinical diagnosis, the CES-D scale is based on symptoms of depression as seen in clinical cases. Therefore, it should discriminate strongly between patient and general population groups. In fact, the CES-D's criterion-related validity has been established in a study with older adults (Haringsma, Engels, & Beekman, 2004). In this study the CES-D was compared with parallel existing measures of Major Depressive Disorder. The CES-D was found to be "moderately accurate" in predicting whether patients would be categorized as meeting criteria for Major Depressive Disorder using other instruments. The researchers found that the optimum cut-off score to detect Major Depressive Disorder using the CES-D was a score of 25 or more on the instrument. Furthermore, the false positives identified by the CES-D were typically older individuals with a high number of past depressive episodes, but not experiencing an actual current depressive episode.

Another study (Skorikov &Vandervoort, 2003) compared the CES-D with the Beck Depression Inventory. These researchers found that the two instruments were moderately positively correlated with one another. Additionally, both instruments exhibited similar relationships with other measures of locus of control, hostility, self-esteem, anxiety and hypochondriasis. Despite these convergences, the researchers found evidence that the CES-D and the BDI measure different aspects of depression. While they found the factor structure of each instrument to overlap greatly with each other, each

instrument had unique factors that were not accounted for by the other. Their factor analysis of each instrument suggests that the BDI measures more of the "Performance Difficulty," i.e. functional impairments, associated with depression, whereas the CES-D items tend to tap more of the "Negative Affect" component of depression, e.g. sad mood. Thus, Shorikov and Vandervoot (2003) concluded similar to previous research by Wilcox, Field, and Prodromidis (1998) that these two instruments both load on a general factor of depression, but each have substantial portions of their items that load on unique factors of depression, i.e. the BDI and CES-D are similar, but qualitatively different instruments.

Due to the evidence for each instrument measuring unique aspects of depression, both Skorikov and Vandervoort (2003), as well as previous researchers, e.g. Santor, Zuroff, & Ramsay (1995) have concluded that the CES-D is better for the purpose of studying depressive symptoms in the general population, where behavioral impairments due to depression may not be as prevalent. In contrast, the BDI is better for use in clinical populations, where information about the functional impairments due to the disorder is more of the focus.

Cross Racial Identity Scale – (Cross, 1971; Vandiver et al., 2000; Vandiver, Cross, & Worrell, 2002) see Appendix B

The Cross Racial Identity Scale (CRIS; Cross, 1971) is a scale designed to measure the theoretical constructs proposed in Cross's most recent incarnation of the Nigrescence Theory (Vandiver, Cross, & Worrell, 2002, Vandiver et. al, 2000). The most recent version of the CRIS is a 50-item scale with 6 subscales. The items on CRIS are answered using a 7-point Likert-type scale. Answers can range from strongly disagree

(1) to strongly agree (7). The six subscales are derived from the most recent instrument validation study conducted on the CRIS. Here the researchers conducted an exploratory and follow-up confirmatory factor analysis of the instrument (Vandiver et al., 2002). The resulting scales were labeled: a) Pre-Encounter Assimilation (PA), b) Pre-encounter Miseducation (PM), c) Pre-encounter Self-hatred (PSH), d) Immersion-Emersion Anti-White (IEAW), Internalization Black Nationalist (IBN) and Internalization Multicultural Inclusive (IMCI). The coefficient alphas for the subscales ranged from .76 for the IMCI, .79 for the IBN, .85 for the IEAW, PSH and PA scales, and .89 on the PM scale (Vandiver et. al, 2002). In the present study, observed Cronbach Alphas for each subscale of the CRIS ranged from .83 for the Pre-Encounter Miseducation scale to a high of .98 for the Immersion-Emmersion Anti-White scale. All CRIS alphas are presented in Table 4. In Vandiver's 2002 instrument validation study, moderate and significant correlations were found between specific scales of the CRIS and other relevant measures. In terms of discriminant validity, the CRIS was founded to not correlate with measures of social desirability and not correlate with measures of the Big Five personality traits findings, which are theoretically consistent.

Worrell, Vandiver, & Cross (2004) followed-up the 2002 instrument validation study with an attempt to examine the CRIS's psychometric properties among older adults. In this study a factor analysis confirmed the same six-factor structure of the CRIS and similar Cronbach Alphas were observed for the CRIS subscales, with a low of .70 for the PSH scale and a high of .85 for the IA scale.

Multidimensional Measure of Perceived Social Support (Zimet, Dahlem, Zimet, & Farley, 1991) - see Appendix C

The Multidimensional Measure of Perceived Social Support (MSPSS: Zimet et al., 1991) is a 12 item self-report scale that measures the relationships with family, friends and significant other in the areas of social popularity, respect, and items directly related to perceived social support. Each of the relationship groups has 4 items. Respondents indicate the degree of support using a 7-point Likert scale. This scale ranges from very strongly disagree (1) to very strongly agree (7). Scores range from 12 to 84, with higher scores indicating increased social support (Zimet et.al, 1991). The observed Cronbach Alpha coefficient alpha for the MPSS total scale was .91, and for the Family, Friends, and Significant Other subscales, the coefficient alphas are .90, .94, and .95 respectively. These coefficient alphas values indicate excellent internal reliability and are consistent with results from previous studies that used a variety of subject samples: undergraduates, pediatric residents, pregnant women, and adolescents living abroad. The test-retest reliability for the Family, Friends, and Significant Other subscales are .85, .75, and .72 respectively. The test-retest reliability for the whole scale is .85 (Dahlem, Zimet, & Walker, 1991). In the present study Cronbach Alphas for the scales were as follows: Family subscale = .96, Significant Other subscale = .98, Friends subscale = .963; see Table 4.

Religious Commitment Inventory-10 (Worthington, Wade, & Hight, 2003) – see Appendix D

The Religious Commitment Inventory-10 (Worthington, Wade, & Hight, 2003) is a 10-item religious inventory used to measure religious values and religiosity. The

instrument is intended to tap general religious commitment, and to be used in research in which a brief measure is desired. The inventory can be used as an overall scale or can be divided into two subscales. The initial psychometric study found via factor analysis that two factors were present among comprising 10 items of an original 17-item scale. The subscales are interpersonal religious commitment and intrapersonal religious commitment. The coefficient alphas for the RCI-10 in the initial psychometric study were: .93 for the full scale, .87 for the interpersonal religious commitment and .92 for the intrapersonal religious commitment (Worthington, Wade, & Hight, 2003). In the present study the Cronbach Alpha for the full scale was observed to be a robust .94, see Table 4. Also, the intercorrelation between the two subscales was strong, r = .71, and statistically significant. The researchers also conducted 3-week test-retest reliability analyses, finding that the full scale exhibited a test-retest reliability coefficient of .87.

In terms of reliability the initial psychometric study of this instrument found that the RCI-10 had strong convergent validity in that the instrument exhibited moderate to strong correlations with other measures of general religiosity, institutional religiosity, religious service attendance and participatory spirituality. The RCI-10 also demonstrated strong divergent validity in that it did not correlate with a single-item measure of spirituality, defined as exemplary human traits, i.e. the item excluded any mention of participation in spiritual tasks, organizations. Also, the RCI-10 exhibited no correlation with a measure of moral reasoning, the Visions of Everyday Morality Scale.

Schedule of Racist Events (Landrine, & Klonoff, 1996) – see Appendix E

The Schedule of Racist Events (SRE) is an 18-item inventory designed to assess perceived racial discrimination. Each item inquires about the frequency with which the

individual has experienced said event in the last year and in their lifetime. The responses are presented on a 6-point Likert-type scale, with 1 = "the event never happened to me," and 6 = "the event happens almost all the time." A third scale assesses the individual's appraisal of each event, though this scale was not used in the current study. In the initial instrument development study, Landrine & Klonoff found high Cronbach Alphas for the scale and high split-half reliability coefficients. This initial study also found moderate correlations between the SRE and cigarette smoking and psychiatric symptoms. The Cronbach Alphas for the three scales of the instrument were all excellent in this initial study ranging from .94 - .95, and exhibited 1-month test-retest coefficients ranging from .95 - .96. The present study only utilized the Lifetime Prevalence subscale and a Cronbach Alpha of .95 was observed, see Table 4.

Due to the relatively small sample of the initial instrument study (n = 153), the same researchers followed-up with a second validation study (Landrine, & Klonoff, 1999). This study utilized 520 African American participants, and found support for the instrument measuring a single factor, though three scales had been originally constructed which were labeled a) Recent Racist Events (prior year), b) Lifetime Racist Events, and c) Appraisal of Racist Events. Despite the original design, the results of both the initial instrument study and the follow-up study suggested that the instrument measures a single factor. The alphas observed for the three scales in the second validation study again ranged from .94-.95. The present study will only utilize the Lifetime Racist Events items to both manage the length of the protocol and because this scale had exhibited acceptable alphas one its own in the validation studies as well as the primary target of the current

study was to gain an index of the respondent's overall experience of racism and discrimination.

Lastly, in the second validation study Landrine and Klonoff again found that the SRE was significantly positively associated with various types of psychiatric symptoms. This was similar to the results of the initial validation study and lends evidence to viewing the SRE as a reliable and valid measure of a culturally-specific stressor, i.e. the subjective experience of racism.

Demographic & Background Information – see Appendix F

Participants was asked to provide various information about their demographic information as well as questions related to the participant's socio-economic status, academic major, high school GPA, parents' levels of education, as well as the participant's religious affiliations and student organization affiliation.

Results

The demographic information on the participants is summarized in Table 1. As illustrated there, most of the participants were Juniors, Seniors or Graduate Students (86.48%). The majority of the sample reported fathers with some college or holding a Bachelor's degree (55%), and the same was true for mother's educational attainment, with 51.3% reporting that their mother had either some college or a Bachelor's degree. In addition, 62% of the sample reported family income levels between $40,000 and $100,000 per year, with the modal income category between $40,000 to $60,000 per year.

Table 1: Frequency Distributions of Demographic Data

		Frequency	Percent
Year in School	Freshman	8	7.21
	Sophomore	7	6.31
	Junior	33	29.73
	Senior	27	24.32
	Graduate Student	36	32.43
Dad's Education	No High School Diploma	12	10.80
	HS Diploma/GED	20	18.00
	Some College	30	27.00
	Bachelor's	32	28.80
	Graduate Degree	17	15.30
Mom Education	No HS Diploma	11	9.90
	HS Diploma/GED	16	14.40
	Some College	24	21.60
	Bachelor's	33	29.70
	Graduate Degree	27	24.30
Family Income	under 20K	16	14.40
	20-40K	14	12.60
	40-60K	27	24.30
	60-80K	21	18.90
	80-100k	21	18.90
	100-150K	8	7.20
	150K or more	4	3.60

Descriptive statistics for the instrument scores as well as age are presented in Table 2. All of the variables were near-normally distributed, with skewness and kurtosis statistics between -3 and +3. Correlation Coefficients between the CES-D and demographic variables were calculated as a preliminary analysis. These statistics are presented in Table 3. All three indicators of socio-economic status were significantly, but mildly negatively correlated with depression. Age and year in school were not correlated with depression. The parental education variable and self-reported family income variables were all significantly and moderately positively correlated with one another. To reduce multicollinearity in the ultimate regression model, the three SES indicators were summed to create an index of SES. The mean for this SES index was 10.32, with a standard deviation of 3.55, and with acceptable skewness and kurtosis statistics. Due to the lack of significant zero-order correlations, age and year in school were excluded from the final regression analysis.

Table 2

Descriptive Statistics for Research Instruments and Age

Variables	Mean	Std. Dev.	Skewness	Kurtosis
Age	24.260	6.253	2.799	10.295
CES Depression Scale	19.59	14.70	1.084	0.540
Pre-Encounter - Assimilation	15.973	8.301	0.696	-0.627
Pre-Encounter - Miseducation	16.351	7.332	0.449	-0.421
Pre-Encounter - Self-Hatred	15.793	10.069	0.463	-1.405
Immesion-Emmersion - Anti-White	17.820	12.901	0.268	-1.791
Internalized – Multicultural Inclusive	21.261	9.412	-0.243	-1.184
Internalized – Black Nationalist	17.658	8.477	0.497	-0.722
Significant Other - Social Support	20.333	8.510	-0.873	-0.774
Family - Social Support	21.847	7.233	-1.341	0.718
Friends - Social Support	22.270	6.797	-1.580	1.460
Religious Commitment	36.793	10.518	-0.886	0.008
Racial Events - Lifetime	35.586	15.497	1.622	2.772

Table 3: Correlation Coefficients Between CES-D and Demographic Variables

	Variable	1	2	3	4	5	6
1	CES-D	--					
2	Age	-0.157					
3	Year in School	0.042	0.414*				
4	Dad's Education	-0.223*	-0.017	0.018			
5	Mom Education	-0.203*	-0.220*	0.009	0.632**		
6	Family Income	-0.221*	-0.188*	0.056	0.554**	0.653**	--

Note. CES-D = Center for Epidemiological Studies Depression Scale
* $p < .05$, ** $p < .01$

A correlation matrix was calculated between all of the research variables, and as well as Cronbach Alphas for each scale. These results are presented in Table 4. Of note is that only the Pre-encounter Assimilation and Internalization – Multicultural Inclusive scales was correlated with depression and both of these correlations were mild and

negative. None of the other CRIS scales exhibited significant correlations with depression. In contrast, all three of the social support scales were moderately negatively correlated with depression. Religious commitment was mildly negatively correlated with depression, and lifetime prevalence of negative racial events was mildly positive correlated with depression. Also of note, is that campus type was uncorrelated with depression, i.e. there was no difference between each type of campus in terms of overall depression levels. Finally the inter-correlations among the potential predictor variables were all mild to moderate, therefore acceptable levels of multicollinearity should be present in the regression model.

Table 4: Correlation Matrix of Research Instruments & Variables

	Variables	1	2	3	4	5	6	7
1	CES-D	(0.950)						
2	Campus Type	-0.129	--					
3	SES	-0.305**	0.193	--				
4	PEA	-0.233*	-0.136	0.064	(0.853)			
5	PEM	-0.072	-0.092	-0.061	0.382**	(0.826)		
6	PESH	0.105	-0.019	0.298**	-0.102	0.083	(0.924)	
7	IEAW	0.090	0.214*	0.324**	-0.267**	-0.071	0.712**	(0.980)
8	IM	-0.199*	-0.235*	0.139	0.336**	0.336**	-0.035	-0.269**
9	IBN	-0.073	0.061	0.063	-0.006	-0.137	0.069	0.262**
10	SO	-0.524**	-0.038	0.010	0.380**	0.154	-0.232*	-0.350**
11	FAM	-0.537**	0.146	0.188	0.058	0.007	-0.117	-0.176
12	FRD	-0.566**	0.158	0.224*	0.272**	0.229*	-0.138	-0.148
13	REL	-0.351**	-0.100	-0.002	0.198*	0.047	-0.136	-0.350**
14	RELF	0.415**	-0.028	-0.363**	-0.261**	-0.304**	-0.203*	-0.058

Note. CES-D = Center for Epidemiological Studies Depression Scale, SES = socio-economic index, PEA – Pre-encounter Assimilation, PEM = Pre-encounter Miseducation, PESH = Pre-encounter Self-hatred, IEAW – Immersion-Emmersion – Anti-White, IM = Internalization Multicultural Inclusive, IBN = Internalization Black Nationalist, SO = Social Support – Significant Other,
FAM = Social Support – Family, FRD = Social Support – Friends, REL = Religious Commitment Scale – 10, RELF = Schedule of Racial Events – Lifetime
Note. Numbers in parentheses are the Cronbach Alphas for the selected scale.
*p < .05, ** p < .01

Table 4: Continued

	Variables	8	9	10	11	12	13	14
8	IM	(0.908)						
9	IBN	0.015	(0.878)					
10	SO	0.338**	0.026	(0.980)				
11	FAM	0.298**	0.121	0.574**	(0.956)			
12	FRD	0.426**	0.007	0.674**	0.625**	(0.963)		
13	REL	0.301**	-0.036	0.479**	0.456**	0.427**	(0.935)	
14	RELF	-0.246**	0.201*	-0.230*	-0.229*	-0.456**	-0.191*	(0.947)

Note. IM = Internalization Multicultural Inclusive, IBN = Internalization Black Nationalist, SO = Social Support – Significant Other, FAM = Social Support – Family, FRD = Social Support – Friends, REL = Religious Commitment Scale – 10, RELF = Schedule of Racial Events – Lifetime
Note. Numbers in parentheses are the Cronbach Alphas for the selected scale.
*p < .05, ** p < .01

Based on the very mild or non-existent zero-order correlations between the Cross Racial Identity Scale (CRIS) variables and depression and the lack of any differences in depression scores across campuses, a preliminary multiple regression analysis was performed examining only the relationships between the CRIS variables and campus type with depression. This analysis was done to determine the utility of including these variables in the full regression model predicting depressive symptoms. The results of this initial regression analysis are presented in Table 5. Note that interactions between each CRIS scale and campus type were also entered at the last step to determine if campus type moderated the relationship between racial identity and depression. To calculate the interaction cross products, all the CRIS scores for each participant was centered by subtracting the mean for each scale. The centered CRIS scores were then multiplied by the coding for campus type, resulting in an interaction cross-product. Centering is performed in order to reduce collinearity between the initial individual predictors and the interaction terms.

Table 5

Preliminary Multiple Regression Analysis with Cross Racial Identity Scale (CRIS) Scales and Campus Type Predicting Depression Scores.

Step	Predictors	B	Std. Error	Beta		R^2	R^2 Δ
1	PEA	-0.359	0.190	-0.203		0.088	0.088
	PEM	0.067	0.214	0.033			
	PESH	0.220	0.205	0.151			
	IEAW	-0.113	0.175	-0.099			
	IM	-0.254	0.168	-0.162			
	IBN	-0.090	0.175	-0.052			
2	PEA	-0.366	0.188	-0.207		0.119	0.031
	PEM	0.071	0.212	0.036			
	PESH	0.136	0.208	0.093			
	IEAW	-0.029	0.179	-0.026			
	IM	-0.293	0.168	-0.188			
	IBN	-0.096	0.173	-0.055			
	CAMP	-5.599	2.955	-0.187			
3	PEA	-0.944	0.331	-0.533	**	0.173	0.055
	PEM	0.195	0.321	0.097			
	PESH	0.055	0.353	0.038			
	IEAW	-0.181	0.323	-0.159			
	IM	-0.322	0.303	-0.206			
	IBN	0.175	0.262	0.101			
	CAMP	-6.013	3.043	-0.201			
	CAMP * PEA	0.875	0.404	0.387	*		
	CAMP * PEM	-0.264	0.441	-0.095			
	CAMP * PESH	0.021	0.443	0.011			
	CAMP * IEAW	0.289	0.393	0.198			
	CAMP * IM	0.092	0.365	0.047			
	CAMP * IBN	-0.461	0.356	-0.201			

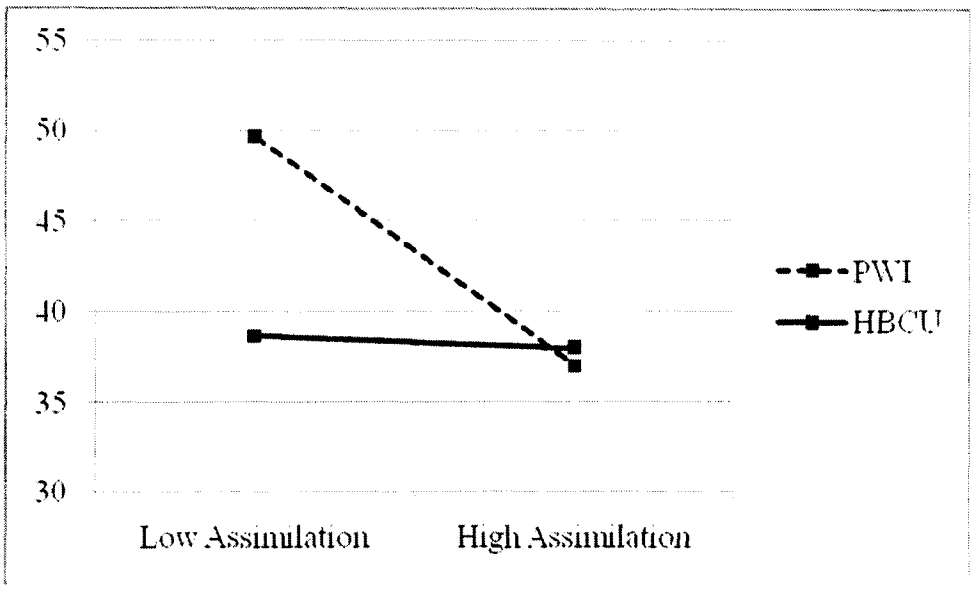
Note. PEA – Pre-encounter Assimilation, PEM = Pre-encounter Miseducation, PESH = Pre-encounter Self-hatred, IEAW – Immersion-Emmersion – Anti-White, IM = Internalization Multicultural Inclusive, IBN = Internalization Black Nationalist

*p < .05, ** p < .01

The results indicate that the regression model did not achieve a significant F-value at any step. Campus Type nor the interaction terms contributed a statistically significant increase in explained variance to the model. However, a significant individual Beta weight was observed for PEA at step 2, once Campus Type was present in the model, and a significant Beta weight was observed at step 3 for the PEA * CAMP interaction. This interaction effect is presented visually in Figure 1.

Figure 1

Interaction Effect Between Pre-encounter Assimilation and Campus Type in Predicting Depression Scores



This interaction effect depicts how the Pre-encounter Assimilation racial identity beliefs have apparently different associations with depression depending on the racial demographics of the campus. Figure 1 illustrates that for women attending a PWI college holding a lower degree of assimilation attitudes is associated with higher levels of depressive symptoms. In contrast, assimilation beliefs are unassociated with depression for women in HBCU settings. Despite the significant Beta weight for this interaction

effect, it did not result in an overall significant regression model, i.e. the F-test was non-significant, nor did the interaction term add a statistically significant degree of explained variance to the regression model. Overall the relationship between racial identity variables and depression and the relationship between campus type and depression appear extremely weak and mostly non-existent in the present sample.

Because of the low salience of the CRIS scales in predicting depression, the ultimate regression model did not include these scales. Rather, the final regression model proceeded in the following manner: step 1: SES index, step 2: the three social support scales, step 3: religious commitment, step 4: racial events – lifetime, step 5: campus type, and step 6: interaction cross products between campus type and each of the predictors, again calculated by centering the predictors before calculating the interaction cross product. Lastly, at step 7 the PEA scale of the CRIS and the CAMP * PEA interaction were entered to check whether this effect emerged as significant while controlling for the other predictors in a multiple regression model. The results of the final regression analysis are presented in Table 6.

Table 6

Summary of Hierarchical Regression Analysis Predicting CES-D Scores

Step		B	Std. Error	Beta	R^2	R^2 Δ
1	SES	-1.235	0.390	-0.305 **	0.093 **	0.093 **
2	SES	-0.834	0.314	-0.206 **	0.481 **	0.388 **
	SO	-0.408	0.175	-0.243 *		
	FAM	-0.639	0.211	-0.311 **		
	FRD	-0.358	0.232	-0.170		
3	SES	-0.849	0.316	-0.210 **	0.484 **	0.002
	SO	-0.378	0.181	-0.226 *		
	FAM	-0.615	0.215	-0.300 **		
	FRD	-0.346	0.233	-0.164		
	REL	-0.079	0.121	-0.057		
4	SES	-0.560	0.315	-0.138	0.534 **	0.051 **
	SO	-0.392	0.173	-0.234 *		
	FAM	-0.664	0.206	-0.324 **		
	FRD	-0.060	0.240	-0.028		
	REL	-0.114	0.116	-0.083		
	RE-LF	0.271	0.085	0.267 **		
5	CAMP entered				0.543 **	0.008
6	CAMP interaction cross products entered				0.547 **	0.005
7	PEA & CAMP * PEA entered				0.548 **	0.013

Note. CES-D = Center for Epidemiological Studies Depression Scale, SES = socio-economic index, SO = Social Support – Significant Other, FAM = Social Support – Family, FRD = Social Support – Friends, REL = Religious Commitment Scale – 10, RELF = Schedule of Racial Events – Lifetime, CAMP = campus type, PWI vs. HBCU

*p < .05, ** p < .01

The SES index variable was a significant negative predictor of depression at step 1, adding about 9% of explained variance in depression scores. At step 2, the social support scales added approximately 39% of unique explained variance in the CES-D scores, though only the significant other and family scales were significant negative predictors of depression. Religious commitment, despite a moderate negative zero-order correlation with the CES-D, added no statistically significant amount of explained variance in depression scores at step 3. At step 4, the Lifetime Prevalence scale of the

Schedule of Racist Events added a statistically significant amount of unique explained variance of the CES-D scores, approximately 5%. This scale was a significant positive predictor of depression. At step 5, campus type was a non-significant predictor and did not add a statistically significant amount of explained variance, and at step 6, the campus type interaction cross products also did not add a significant amount of explained variance. The total R^2 for the model stopping at step 4 is moderate, with approximately 53% of the variance in CES-D scores accounted for by the variables entered to that point. The adjusted R^2 at this stage, controlling for collinearity between the predictors, was observed to be 48.5%. Notable is that the vast majority of this explained variance is due to the social support scales. Unsurprisingly, the PEA scale and the CAMP * PEA interaction did not contribute a statistically significant amount of explained variance at step 7 of the regression model.

Based on the results of the full regression model a *post hoc* analysis was performed to further investigate the relationship of Religious Commitment with depression. First, three partial correlation coefficients were calculated for Religious Commitment and the CES-D scale, controlling for each of the social support scales. A summary of these analyses is summarized in Table 7. The Religious Commitment scale exhibited a moderate negative zero-order correlation with the CES-D, as did all three of the social support scales, though when entered after the social support scales in the hierarchical regression model, Religious Commitment did not contribute any additional explained variance. This hints at a mediating role played by social support between religiosity and depression. This series of partial correlations revealed that when controlling for any of the social support scales the correlation between Religious

Commitment and the CES-D is attenuated to a non-significant correlation, though the zero-order correlation between these two variables is r = -.351. When controlling for all three social support scales simultaneously, the correlation between Religious Commitment and the CES-D is reduced to a non-significant r of -.037. Three more partial correlation analyses were performed between each social support scale and the CES-D scores, while controlling for Religious Commitment. Controlling for Religious Commitment attenuated none of the negative correlations between social support and depression. What can be seen in this analysis is that all of the social support scales attenuate the relationship between Religious Commitment and depression, i.e. no individual social support scale appears to singularly attenuate this relationship. Also, Religious Commitment did not attenuate the relationships between each social support scale and the CES-D scores.

Table 7

Zero-Order and Partial Correlations for Social Support Scales, Religious Commitment and CES-D Scores

	Variable	CES-D
Zero-Order Correlation	REL	-0.351**
Partial Correlations Controlling for:		
FAM	REL	-0.141
SO	REL	-0.133
FRD	REL	-0.146
FAM, SO, FRD	REL	-0.037
Zero-Order Correlation		
	FAM	-0.537**
	SO	-0.524**
	FRD	-0.566**
Partial Correlations Controlling for:		
REL	FAM	-0.433**
REL	SO	-0.453**
REL	FRD	-0.491**

Note. CES-D = Center for Epidemiological Studies Depression Scale, REL = Religious Commitment Inventory – 10, FAM = Family Social Support, SO = Significant Other Social Support, FRD = Friends Social Support
* $p < .05$, ** $p < .01$

Utilizing Baron and Kinney's (1986) outline for establishing mediation effects, we can first establish that Religious Commitment is significantly negatively correlated with the outcome variable - depressive symptoms. Second, reviewing the original zero-order correlation matrix, Religious Commitment was significantly moderately and positively correlated with all three proposed mediators social support scales. Thirdly, each of the social support scales is significantly moderately and negatively correlated with the outcome variable of depression. Lastly, to test the mediation effect, Religious Commitment was entered as an initial predictor in a multiple regression analysis,

followed by entry of each of the social support scales, entered in the order of their Beta weights as observed in the final step of the full regression model, i.e. family entered first, followed by significant other, followed by friends. The results of this mediation analysis are summarized in Table 8.

Table 8

Summary of Post Hoc Hierarchical Regression Analysis Testing Mediation Effect of Social Support on Religious Commitment's Relationship with Depressive Symptoms

Step		B	Std. Error	Beta	R^2	$R^2 \Delta$
1	REL	-0.490	0.125	-0.351 **	0.123 **	0.123 **
2	REL	-0.186	0.126	-0.133	0.303 **	0.180 **
	FAM	-0.968	0.184	-0.476 **		
3	REL	-.0690	0.127	-0.049	0.360 **	0.057 **
	FAM	-0.690	0.198	-0.339 **		
	SO	-0.528	0.171	-0.306 **		
4	REL	-.0480	0.125	-0.034	0.395 **	0.035 *
	FAM	-0.499	0.209	-0.246 *		
	SO	-0.312	0.189	-0.18		
	FRD	-0.597	0.241	-0.276 *		

Note. REL = Religious Commitment, FAM = Family Social Support, SO = Significant Other Social Support, FRD = Friends Social Support
* $p < .05$, ** $p < .01$

Table 8 illustrates several things. First, that Religious Commitment's relationship with depression is partially mediated by Family Social Support. The addition of Significant Other Social Support alongside controlling for Family Social Support appears to fully mediate Religious Commitment's relationship with depression. The addition of Friends Social Support does not appear to significantly further attenuate Religious Commitment's relationship with depressive symptoms. Also evident in this analysis is

that Family Social Support, which explained approximately 18% of the variance in the CES-D scores, accounts for the majority of social support's role in explaining depressive symptoms. Significant Other Social Support explained approximately 5.7 of the variance and Friends Social Support explained approximately 3.5% of the variance in the CES-D scores. Overall the effect of Religious Commitment upon depressive symptoms appears fully mediated by the role of social support, defined broadly. Religious Commitment did not appear to have its own unique relationship with depression independent of social support factors in the present study.

Discussion

This study explored most directly the association between the relative racial demographics college campuses and African American women's self-report of depression. The study also controlled for the role of other known predictors of depression, e.g. racial identity, social support, religiosity, personal history of negative racial experiences, and socio-economic status. The investigator's main goal was to determine if there were differences in the level of depressive symptoms across two types of colleges, e.g. HBCU or PWI, to assess the roles of the other control variables in predicting depression and to assess whether the type of college moderated the relationship of the other variables with depression.

Racial identity is a five-stage process as proposed by William Cross's Nigrescence Theory (Cross, 1971). Building on William Cross's Nigrescence Theory, Janet Helms was able to conclude that the development of a strong racial identity among African Americans is a process that requires going through the five different stages before learning how to accept and affirm his or her Black identity in an American context. The process begins with a negative outlook about one's racial group and proceeds towards the development of a more positive attitude towards one's racial group (Helms, 1990).

Depression is one of the more prevalent mental health conditions in the general population. However, depression occurs at higher rates in females, those of lower social classes and working class women. African American females are overrepresented among lower social classes and working class women (Horton, Thomas & Herring, 1995). The overrepresentation of African American females in the lower socioeconomic strata can be partially explained by the fact that ethnic minorities face a range of current and historical

barriers to educational attainment and successful employment, particularly lucrative employment opportunities (U.S. Census Bureau, 1999). Evidence is mixed as to whether African Americans in fact report more depressive symptoms than other ethnic groups, despite their unique disadvantages in regards to SES factors.

Beyond racial and socio-economic factors, social support is a buffer against many life stressors including depression, and can be viewed as a factor that is not unique to any particular racial group, but which may play an even stronger role in protecting against depression among African Americans. Social support has been associated with self-esteem (Ellison, 1993; Hughes & Demo, 1989; Miller, Moen, & Dempster-McClain, 1991), less depression (Ensel & Lin, 1991 & Hong & Seltzer, 1995) and overall well-being (Chatters, 2000; Raymond, Rhoads, Raymond, 1980). Among African American females, family support has been found to have the most significant impact on their overall psychological wellness when compared to the support from friends and significant others. Blacks have shown a greater satisfaction from kin involvement than from friends and significant other involvement. Furthermore, kin involvement in Blacks contributes to more positive affect (Griffin et. al, 2006).

Possibly closely linked to social support is the role that religiosity plays in the lives of African American females. Religiosity is also a buffer against depression. The Black church and religion are used as a source of strength for African American women today. God is seen as a deliverer from unjust suffering and the comforter in times of trouble. The Black church provides Black women spiritual renewal and empowerment that cannot be provided by other sources in society (Musgrave, Allen & Allen, 2002). Overall, African Americans have higher rates of religious involvement then the general

U.S. population. African American women demonstrate higher rates of religious participation, commitment and spirituality than African American men (Jagers & Smith, 1996). Religious involvement has been proven to have a positive affect on mental and physical health outcomes, specifically the affects of depression (Koenig, 1998; Smith, McCullough, & Poll, 2003). A negative correlation exists between religious commitment and depression. Higher religious commitment means lower levels of depression (McCullough & Larson, 1999).

The present study posed several hypotheses as to the exact manner in which campus racial demographics and the other predictor variables would relate to depression. What follows is an analysis of the findings in the context of each hypothesis. Overall, no support was found for viewing campus racial demographics as a salient factor in predicting depressive symptoms or moderating the relationships for the other predictors and depression. However, intriguing relationships in regards to the other predictor variables did emerge.

Campus Racial Demographics & Depression

It was initially hypothesized that campus types would have a direct impact on depression rates in African American women. This hypothesis, however, was not supported. It was also hypothesized that there may be different predictors of women's depression across different types of campuses, i.e., HBCU vs. PWI; this hypothesis also received no support in the results. No differences were observed in depression scores across Black and predominantly white campuses and the significant predictors that did emerge of scores on the CES-D did not differ in their significance or strength across HBCU and PWI campuses. An interaction effect involving Pre-encounter – Assimilation

racial identity beliefs and campus type exhibited a significant Beta weight in the context of a non-significant overall regression, suggesting that PEA was a negative predictor of depression, but only for women attending a PWI. However, this finding did not ultimately appear significant when included in the full regression model with the other predictors were controlled.

Despite the fact that campus type did not emerge as a significant predictor of depression, African American women may still be seen as an at-risk group for depression due primarily to being female, and also due to their race to the extent that being African American correlates with lower SES factors in a woman's life. The present study did not compare rates of depressive symptoms across gender, so it can only be assumed that the women in this study are similar to women from previous studies, in which higher rates of depressive symptoms have been observed for women. Regardless, if they have to adjust on the campus of Howard or Harvard, gender and SES variables should be a constant risk factor for African American women.

The present study demonstrated that SES is a significant negative predictor of depression, and was so across both types of campuses. Additionally, campus racial demographics may be confounded with a woman's experience of negative racial events, i.e., women at a PWI would theoretically be at an increased risk of exposure to such events as compared to women attending an HBCU. However, in the present study the self-reported lifetime prevalence of negative racial events was a significant positive predictor of depression consistently across both types of campuses. Finally, prior research has shown social support to be a salient predictor of depressive symptoms. This was reaffirmed in the present study, where family social support emerged as a significant

negative predictor of depressive symptoms. Again, this finding was consistent across different campus types.

The primary conclusion to be taken away from this study is perhaps that it is not so important as to the racial demographics of a college campus as it is the woman's history of race-based stressors, her SES background and her level of social support, particularly family social support. Regardless of what type of school they attended, the least depressed women in the present sample reported experiencing a smaller number of past negative racial events, were from relatively well educated middle-to-upper class families and perceived a great deal of family support.

One possible explanation as to why campus type did not emerge as a significant predictor of depression is depression has a genetic component. Depression has been described as moderately heritable. Recurrence and early age at onset characterize cases with the greatest familial risk (Levinson, 2005). Restated, there appears to be a specific gene, or more likely set of genes that if present can be passed from parent(s) to child that increases a person's chance of becoming depressed later in life, i.e. increasing an individual's diathesis for depression. Heritability rates based on a twin studies have been found to be between 40% to 50% (Bierut et. al, 1999, Kendler et. al, 1993, Kendler et. al, 2001, Sullivan et. al, 2000). More recent arguments such as those offered by Kendler and colleagues (Kendler, Gatx, Gardner, & Pedersen, 2006) hold that broad personality traits such as Neuroticism and Extraversion are actually what is encoded in genes, and inheritance of such traits, particularly Neuroticism, places individuals at risk for a variety of mood/anxiety problems. The larger point here is that to the extent that heritability accounts for variation in depressive symptoms in any sample of individuals, it may trump

the impact of social stress variables, particular those social variables that exert subtle effects such as campus racial demographics.

Females are twice as likely as males to suffer from depression, with females in their reproductive years having the higher rates of depression among all age groups (Kornstein & Clayton, 2002). As a result, depressed women who become mothers are placing their children at a greater risk of becoming depressed themselves than children not born to depressed mothers. Children born to a depressed mother have a five to six times higher risk of becoming depressed later on in life (Downey & Coyne, 1990). This fact may relate to why campus type did not emerge as a significant predictor. The study only accounted for social and psychological predictors of depression. If genetic risk is as significant as prior research would suggest, then psychosocial variables may play a more limited role in predicting such symptoms. In other words, the differences among depressive symptoms in the women in this sample may be substantially related to genetic differences, rather than the psychosocial variables assessed in the study. If this were the case, then a social variable such as campus racial demographic may exert an influence on depressive symptoms that pales in comparison to the role that genetics plays. This is particularly true if one assumes that African American women born to depressed mothers were just as likely to attend a HBCU as they are a PWI. In this scenario the major predictor of depressive symptoms would be the genetic variation among the women and not the type of campus and accompanying stress associated with a particularly campus.

Another explanation as to why campus type did not emerge as a significant predictor of depression would be environmental stress factors outside of the campus environment. Human beings and ethnic minorities in particular, do not live in a social

vacuum. African American women are theoretically at risk for experiencing daily life stressors that are specific to their skin color, e.g. racial micro-aggression, overt racism, discriminatory acts etc. Past experience of racism across one's lifetime emerged as a strong predictor of depression in this study across campus types. Experiencing racism, whether it occurs in the educational, occupational, or social sphere directly influence rates of depression in this sample of women. Women from both campuses types were susceptible to experiencing racism on one or a combination of these levels outside of their college campus setting, or prior to entering college, therefore making past experiences of negative racial events a significant factor in rates of depression and not the actual campus type. In short, like the potential strength of genetic factors, past race-based stress is a predictor that appears to trump and exert vastly more statistical influence on depressive symptoms than does campus racial demographics. Regardless of the type of campus the woman attends, the bigger question is how much race-based stress has she experienced throughout her life. Attending and HBCU was no protection or buffer against the effects of such stress in the present study.

Lastly, the overall sample may be a possible explanation as to why campus type did not emerge as a significant predictor of depression. First, the sample sizes were small with approximately 50 women from each campus and the analysis may not have had sufficient statistical power or may be too limited in their representativeness to detect campus type differences because of such a small sample size. Second, there were not many freshman and sophomores participants in this study. This is important because freshman and sophomores are at the beginning stages of adjusting to life on a college campus and therefore may be prone to more depression due to being separated from

parents and friends and locating to a different city or state without a support system in place. Rates of depressive symptoms may differ across campuses for these women but could not be detected by the present study. The stress associated with the entry and adjustment to college life may be lessened for African American women at a HBCU relative to those attending a PWI. This is one example of how campus demographics may influence depression but is a phenomenon that the present study would be unable to detect.

In essence, while the study's findings may generalize to a large reality that depression does not vary across campus types for African American women, that does not mean that other mental health/wellness outcomes not assessed in this study may vary across college campuses such as anxiety, body image, self-esteem, etc.

Racial Identity & Depression

Previous research utilizing the Cross Racial Identity Scale (CRIS) has found that, generally, the pre-encounter and immersion-emersion stages are associated with negative mental health functioning, and the internalization stage is associated with more positive mental health functioning. Parham (1982) found that pre-encounter and immersion-emersion attitudes were associated with feelings of inferiority, inadequacy and hypersensitivity. Persons with high levels of immersion-emersion attitudes also were found to exhibit feelings of hostility (Parham & Helms, 1985). On the other hand, internalization attitudes were related to internal locus of control (Martin & Nagayama-Hall, 1992) and people in this stage are considered psychological healthier (Vandiver, 2001).

Expectations in the present study were that the three pre-encounter scales and the immersion-emersion scales of the CRIS would be positively associated with depression. Also, the expectation was to find that the two internalization scales would be negatively associated with depression. No support for these hypotheses was found. In fact, a non-significant but notable trend for pre-encounter Assimilation beliefs was found to be a negative predictor of depression, but only for women attending a PWI. None of the other CRIS scales was found to be a significant predictor of depression, nor was campus type found to moderate the relationship between CRIS scales and depression.

These findings seem to stand in contrast to previous research in this area. The reason no relationship was found with depression could be that the sample was restricted to the upper end of the college spectrum, i.e., there were not as many freshman and sophomores as upperclassmen and graduate students. Another reason why this study did not find a relationship between racial identity and depression could be that the participants were not representative of the general population. There may have been a restriction of range in terms of one set of racial identity beliefs being less represented and other types of such beliefs being overrepresented in the study. This may be further confounded by the lack of underclassmen in the study. Particularly, assuming that freshman and sophomores would be more likely to endorse pre-encounter and immersion-emersion beliefs, the ability to detect relationships for these racial identity beliefs and depression would be limited.

Lastly, it may also be the case that racial identity is unrelated to symptoms as specific and as severe as are found in the depressive category. However, racial identity, as it has been shown in previous research, may be more fundamentally linked to aspects

of wellness, i.e. racial identity is not as much linked to deficits or pathology as it is linked to adaptive strengths at its higher stages. Theoretically, depressive symptoms may actually be unrelated to such adaptive strengths as are present in the internalization stages of racial identity, and therefore would not show up as such in the present study. Racial identity may simply have salience when viewing mental health from a wellness perspective, but less salience when viewing mental health from a medical model/pathology perspective.

Socioeconomic Status & Depression

Depression is a disorder that does not stay within certain racial, age and class lines. The effect of depression continues to be experienced by people of both genders, all races and cultural backgrounds, and all ages. However, there are some components that either work together or separately that makes depression more prevalent in one population when compared to another population. For example, socioeconomic status has proven to play an essential role in predicting mental health status across several previous psychological studies as well as in this present study. Munford (1994) defined SES by occupational, income or educational level or a combination of these factors. In the spirit of Munford's definition of SES, the present study looked at parental education levels and at self-reported family income levels. Munford (1994) further concluded that rates of depression are significantly higher in persons of lower socioeconomic status than persons of higher social classes. Additionally, depressive symptoms have been observed to be higher working class women (Brown, 1987).

In the United States, African Americans are statistically overrepresented among the lower socioeconomic strata (US DHHS, 2001). Therefore, taken together these prior

findings suggest that minority group members are likely to be at a higher risk for depression than people who are White (Plant & Sach-Ericsson, 2004). Despite this, studies assessing prevalence rates of depression across racial groups have yielded equivocal results. However, the present sample is comprised of African American women who are most often from middle-class families and most often had parents with at least some college experience. In the present study, however, SES emerged as a consistent negative predictor of depressive symptoms even when controlling for other relevant factors among African American college women.

Socioeconomic status emerged as a consistent negative predictor of depressive symptoms because an inverse relationship exists between SES and depression. The higher a person's SES, the lower the number of depressive symptoms they report. Generally, low SES is related to higher rates of morbidity and mortality and has been shown to be an important predictor of poor functioning (Mackenbach et. al, 1997). To break it down even further, low SES is related to higher prevalence and incidence of depression (Lorant et. al, 2003, Stansfeld et. al, 2003, Everson, 2002). The effect of low SES continues past depression rates. People who fall in the low SES category have fewer psychosocial resources, negative coping styles, poor social support and report more stressful life events (Bosma et. al, 2005, Kristenson, 2004, Taylor & Seeman, 1999). Low SES is a strong predictor of poor physical function in older adults (Melzer et. al, 2001 & Koster, 2005), which in turn is a predictor of depression. Therefore, it was not surprising that SES came forth as a predictor of depression. African American women who fell in the higher SES categories have better coping styles, more social support and

more psychosocial resources that aided them in dealing with depression thus driving their depression rates down which was supported by the findings in this study.

Social Support & Depression

SES does not exist in a vacuum, however; factors such as social support have also been shown to play a crucial role in depressive processes. Social support is a buffer against many life stressors including depression. More specifically, family social support has proven to be more important than the support of friends and significant others. Those who have the support of their family experience better overall well-being (Chatters, 2000; Raymond, Rhoads, & Raymond, 1980), life satisfaction (Levin, Chatters, & Taylor, 1995), and less depression (Ensel & Lin, 1991 &Hong & Seltzer, 1995). Overall, African Americans have been shown to see their families more often, rate the importance of these relationships higher, and receive more childcare from their kin than Whites (Hays & Mindel, 1973).

The present study hypothesized that Family Social Support in particular would emerge as a significant negative predictor of depression. The final regression model supported this findings, however Significant Other Social Support was also a significant negative predictor. Notable, is that the three social supports scales as a group accounted for the lion's share of explained variance in CES-D scores. As compared to SES, and a history of negative racial experiences, social support, and particularly family social support were stronger predictors of depression. This effect was not moderated by campus type, and was present while controlling for the effects of religiosity, SES, and negative racial events.

Social support translated into less depression for the women in this study because social support acts as a protective moderator between experience of stressful life events and depression (Windle, 1992). Stress has a direct effect in terms of depression when social support is absent, and its effect is decreased when social support is present. Social support whether it comes from family, friends or significant other makes it easier to cope with stressful life events and depression when a problem arises. It is easier to cope with problems and depression if you have someone to help you overcome whatever the problem may be. Women have been found to report more perceived social support (Zimet et. al, 1991) and social support may also be more protective against depression for women than for men (Kendler et. al, 2005). The results of the present study would generally support such conclusions.

Religiosity & Depression

Religiosity plays a role in most, if not all, aspects of the lives of African American women. African American women lean heavily on their spirituality to explain occurrences in their lives. Often times the African American woman turns to her spirituality first to explain depression and other psychological imbalances. Religious involvement is a predictor of many things. African American women who have higher religious involvement have lower levels of psychiatric impairment, better well-being, and health (both physical and psychological). Therefore, it was not surprising to find that the African American students in the study who had higher religious involvement also had lower levels of depression.

However, when the Religious Commitment was entered in the regression analysis after entry of the Social Support scales, it exhibited a non-significant Beta weight. The

post hoc analyses revealed evidence that religiosity's impact on depressive symptoms is fully mediated through social support, viewed here as a general construct, i.e. each of the social support scales appeared to play a role in this mediation effect. This finding likely reflects the fact that religiosity exerts its influence on mood and other symptoms of depression through its ability to bring women into contact with social support factors including family, friends and significant others. This finding is also in keeping with prior observations of the centrality of the religious institution in the lives of most African Americans. The finding also suggests that for the women in this sample, religious beliefs and behaviors did not have their own unique and independent relationship with depression. These variables were simply a channel through which social support exerts effects on depression.

Lifetime Prevalence of Negative Racial Events & Depression

Lastly, racial events over a lifetime played a role in explaining depression in African American women. Women who experienced more racial events over a lifetime had greater rates of depression. This finding held true even after controlling for the role of SES, social support, and religiosity. Experiencing negative racial events over a lifetime leads to an accumulation of stress. Pettigrew and Martin (1987) believe that African American professionals can experience "triple jeopardy" (i.e., stress due to minority status, solo behavior and tokenism) while working in predominantly White work environments. Each element of the "triple jeopardy" pie adds its own component of stress in the lives of the African American experiencing it.

After a while, stress will lead to depression and other epidemiological problems. Kuiper, Olinger and Lyons (1986) reported that the global level of stress significantly

moderated the relationship between negative life events and depression. They found that for participants with high-perceived stress, negative life changes had a pronounced negative affect on depressive symptoms. Furthermore, increased race-based stressed on the job whether defined as job strain, high psychological demand and low decision latitude on the job or effort-reward-imbalance at work were associated with increased systolic and diastolic blood pressure (James & Bovbjerg, 2001). Race-based stress is particularly difficult to cope with, because it often occurs in the form of subtle events or symbolic gestures rather than overt acts of bigotry. Such subtle events are a) difficult to determine how one should respond to, and b) can occur with great frequency and accumulate into a large effect over time. What is intriguing about this finding in the present study is that this effect occurs even while controlling for other variables. Having a high level of SES was predictive of low levels of depression, though regardless of class status past racist experiences still exerts their own relationship with depression. Also, independent of social support factors the past racist experiences hold up as a significant predictor of depression.

Implications for Future Research and Practice

There are several implications of this study on future research and practice. These include spurring research on Black women's relational worlds, particularly their family relationships. The dominant Eurocentric paradigm might deemphasize the role of family support in emotional problems of college-aged adults, though the present study suggests this paradigm would be incorrect, at least for African American women. Clinicians working with such women should consider that it may be culturally-appropriate to encourage and facilitate such women accessing family supports. Moreover, these

supports, based on the present evidence, are likely to often occur in the context of the religious lives of the college woman and her family. Future research should explore in more detail precisely how religiosity in African American women exerts influence on depression indirectly through the social support the religious life appears to bring.

There is still much research to be done that focuses on the social support that is provided by the family of African American women. This study only began to scratch the surface of this complex subject matter. This study can be used as a foundation in understanding the role of family social support as well as other factors that affect the psychological well-being of African American women. A follow-up study could use the social support given to African American men as a comparison group. This study can also be used to determine the size of the affect of family social support when compared to other factors such as religious involvement and therapeutic intervention.

This study was able to offer some evidence that racist events over a lifetime have a direct impact on the probability of experiencing depression. Two caveats are important to note with this finding. First, this study was correlation in nature and causality cannot be assumed, nor can the direction of effects be proven. It may be that actual racist events increase stress and thereby lead to higher levels of depressive symptoms. However, it is also possible, though perhaps less likely, that people differ in their sensitivities to racial events, and that such people also tend to be higher on such personality traits as Neuroticism, which would in-turn make them more likely to experience mood disturbances such as depression. The present study is unable to specify whether racist environments cause depression, or other traits predispose some and not other to be oriented to racist events and also towards depressive symptoms. The former hypothesis

appears more plausible, though, given the strong evidence of race-based discrimination in American society. Secondly, this study did not take into consideration that a great deal of racist events that are experienced by African American women also likely are accompanied by a sexist undertone. Being able to isolate the impact that experiencing sexist events have on those who are more prone to being depressed allows for much needed control of a confounding variable when it comes to variables that effect depression rates in African American women.

Lastly, this study shed light on a wide array of factors that African American women use as a buffer against depression. For example, religion is one of the most important buffers. There is a significant association between higher religious commitment and lower levels of depression, though this effect appears fully mediated by social support. Overall, African American women reported higher level of attendance at religious services than African American men as well as Whites of both genders. The present study suggests that further research should be done to identify the precise sorts of relationships that occur for African American women within the church, and which of these relationships has the most salience to depressive processes.

Another buffer against depression rates in African American women is higher socioeconomic status. Depression is found more often in people of lower social classes. Ostensibly, this fact is due to the stress associated with lower SES, but this explanation is still lacking. The current sample was comprised of mostly middle-class African American college students, most of whose parents had at least some college. Yet even in this rather restricted range of SES, the SES index remained a significant predictor of depression. One can easily see that at the extremely low levels of SES, stress might be the underlying

causative factor linking SES with depression. However, this same case can be made for our present sample. Future research should more closely consider the processes that make SES factors predictive of depression even among a range of SES that goes from working class to wealthy as in the present study. Is stress associated with SES still the underlying causative factor?

Limitations

After carefully reviewing this study, a few limitations have been discovered and will be discussed in this section of the paper. The first limitation is sample size. Sample size is a crucial element in psychological research primarily due to the statistical power to increase the analysis's ability to detect trends and relationships present in the population of interest. The present study has a marginal sample to permit comparisons between groups or detect significant relationships between variables. While the sample size is large, it was collected across two institutions and appears to be reasonably representative of African American college women. With that said, freshman and sophomores were underrepresented in the sample. Another aspect of sample size is degrees of freedom. The number of comparisons being made reduces the degrees of freedom in a statistical analysis and consequently reduces the amount of statistical power.

This study has roughly 50 African American women in each level of the independent variable, campus type. Adding more women in the study would open up the possibility of finding significant differences among campus types or detecting moderating effects of campus type on the other predictor variables. A follow-up study should strive for at least 100 participants for each level of the independent variable. Doing so would

be a key component in improving on this study and more confidently ruling out the possibility that campus demographics are essentially unrelated to depressive symptoms.

The second limitation of this study is the element of self-reporting. The results of this study are based on the answers on a self-reporting questionnaire. People often have the tendency to fake "good" when they are reporting on themselves, particularly on sensitive questions such as a depression questionnaire. This is a limitation because it is difficult to get an accurate picture of the person as they are and not just the picture they want to portray on paper. This tendency could be particularly accentuated in a sample of African American women to the extent that member of such a group may be more reticent to openly report mental health problems.

Lastly, recruitment sites would be a limitation of this study. The recruitment sites consisted of a HBCU and a "mixed" university, which has been referred to as technically a PWI throughout the study. The HBCUs student population consisted of approximately 97% African American students and the "mixed" university consisted of approximately 38% African American students. This is a limitation because the study did not look at schools at the student population extremes. Although the HBCU would be considered to be on one end of the spectrum, the "mixed" university would fall somewhere in the middle of the spectrum. In order to correct for this limitation, the follow-up study should recruit from a PWI, which would have an African American student population less than 10%.

References

Allen, W. R. (1985). Black student, white campus: Structural, interpersonal and psychological correlates of success. *Journal of Negro Education, 54,* 134-137.

Allen, W. R., Epps, E.G., Haniff, N.Z (1991). *College on black and white: African students in predominantly white and in historically black public universities.* Albany, NY: State University of New York Press.

Allen, W. R. (1992). The color of success: African American college student outcomes at predominantly White and historically Black public colleges and universities. *Harvard Education Review, 62,* 26-44.

Allgood-Merton, B. Lewinsohn, P. & Hops, H. (1990). Sex differences in adolescent depression. *Journal of Abnormal Psychology, 99*, 55-63.

Altman, J. H. & Wittenborn, J. R. (1980). Depression-prone personality in women. *Journal of Abnormal Psychology, 89*, 303-308.

American Psychiatric Association: *Diagnostic and Statistical Manual of Mental Disorders,* Fourth Edition, Text Revision. Washington, DC, American Psychiatric Association, 2000.

Anderson, J. D. (1988). *The education of blacks in the south, 1860-1935.* Chapel Hill, NC: The University of North Carolina Press.

Baldwin, J. A., Duncun, J. A. & Bell, Y. R. (1987). Assessment of African self-consciousness among Black students from two colleges environments. *Journal of Black Psychology, 13,* 27-41.

Baldwin, J. A. (1984). African self-consciousness and the mental health of African-Americans. *Journal of Black Studies, 15,* 177-194.

Banks, H. A. (1970). Black consciousness: A student survey. *The Black Scholar, 2,* 44-51. Baron, R. M.; Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182.

Barrera, M., Chassin, L., & Rogosch, F. (1993). Effects of social support and conflict on adolescent children of alcoholic and nonalcoholic fathers. *Journal of Personality and Social Psychology, 64,* 602-612.

Bell, A. (1980, May). *Issues in the psychotherapy of Black women.* Paper presented at the annual meeting of the American Psychiatric Association, San Francisco.

Belle, D. (1984). Inequality and mental health: Low income and minority women. In L. Walker (Ed.), *Women and mental health* policy (pp.135-150). Beverly Hills, CA: Sage Publications.

Berger, J. B. (1997). *The relationship between organizational behavior at colleges and student outcomes: Generating a quantitatively grounded theory.* Unpublished Doctoral Dissertation.

Berger, J. B. & Milem, J. F. (2000). Exploring the impact of historically black colleges in promoting the development of undergraduates' self-concept. *Journal of College Student Development, 41,* 381-395.

Bierut , L. J., Heath, A.C., Bucholz, K. K., Dinwiddie, S. H., Madden, P. A. Statham, D. J. Dunne, M. P, & Martin, N. G.(1999). Major depressive disorder in a community-based twin sample. Are there different genetic and environmental contributions for men and women? *Archives of General Psychiatry, 56,* 557-563.

Birmaher, B., Ryan, N., Williamson, D., Brent, D., Kaufman, J., & Dahl, R. E. (1996). Childhood and adolescent depression: a review of the past 10 years. Part I. *Journal of American Academy of Child and Adolescent Psychology, 35,* 1427-1439.

Blackwell, J. E. (1987). *Mainstreaming outsiders: The production of black professionals* (2nd ed.) Dix Hills, NY: General Hall.

Bohr, L., Pascarella, E. T., Nora, A., Terenzini, P. T. (1995) Do Black students learn more at historically Black or predominantly White colleges? *Journal of College Student Development, 36*(1), 75-85.

Bosma H., Van Jaarsveld, C. H. M., Tuinstra, J., Sanderman, R., Ranchor, A. V., Van Eijk, J. Th. M., & Kempen, G. I. J. M. (2005). Low control beliefs, classical coronary risk factors and socioeconomic differences in heart disease in older persons. *Social Science Medicine, 60*(4), 737-745.

Brown, G. W. (1983). Accounts, meaning and causality. In G.N. Gilbert (Ed.), *Accounts, and action (pp.35-68).* Gower: Aldershot.

Brown, G. W. (1987). Social factors and the development and course of depressive disorders in women: A review of a research programme. *British Journal of Social Work, 17,* 615-634.

Burlew, A. K. & Smith, L. R. (1991). Measures of racial identity: An overview and a proposed framework. *Journal of Black Psychology*, 17, 53-71.

Carrington, C. H. (2006). Clinical Depression in African American Women: Diagnosis, Treatment and Research. *Journal of Clinical Psychology, 62* (7), 779-791.

Carter, R. T. (1991). Racial attitudes and psychological functioning. *Journal of Multicultural Counseling and Development, 19,* 105-114.

Carter, R. T., DeSole, L., Sicalides, E. I., Glass, K., & Tyler, F. (1997). Black racial identity and psychosocial competence: a preliminary study. *Journal of Black Psychology, 23,* 58-73.

Chatters, L. M. (2000). Religion and health: public health research and practice. *Annual Review of Public Health, 21,* 335-367.

Coaxum, J. (2008). Historically black colleges and universities-the development of HBCUs, academic, and social experiences at HBCUs, conclusions. *Education Encyclopedia*. Retrieved February 29, 2008, from http://education.stateuniversity.com.

Cokley, K. (1999). Reconceptualizing the impact of college racial composition on African American students' racial identity. *Journal of College Student Development, 40,* 235-246.

Constantine, M. G., Lewis, E. I, Conner, L. C. & Sanchez, D. (2000). Addressing spiritual and religious issues in counseling African Americans: Implications for counselor training and practices. *Counseling & Values, 45,* 28-38.

Cross, W. E. (1978). The Thomas and Cross models of psychological nigrescence: A review. *The Journal of Black Psychology, 5,* 13-31.

Cross, W. E. (1971). Negro-to-Black conversion experience. *Black World*, 20, 13-27.

Dahlem, N. W., Zimet, G. D., &Walker, R. E. (1991). The multidimensional scale of perceived social support: a confirmatory study. *Journal of Clinical Psychology, 41,* 756-761.

Downey, G. & Coyne, J. C. (1990). Children of depressed parents: an integrative review. *Psychological Bulletin, 108,* 50-76.

Dubois, W. E. B. (1903*). Souls of Black Folk.* Chicago: A. C. McClurg.

Ellison, C. G. (1993). Religious involvement and self perception among Black Americans, *Social Forces, 71,* 1027-1055.

Ellison, C. G. & Gay, D. A. (1990). Region, religious commitment, and life satisfaction among Black Americans. *Sociological Quarterly, 31,* 123-147.

Ensel, W. & Lin, N. (1991). The life stress paradigm and psychological distress. *Journal of Health and Social Behavior, 32,* 321-341.

Everson, S. A., Maty, S. C., Lynch, J. W., & Kaplan, G. A. (2002). Epidemiologic evidence for the relation between socioeconomic status and depression, obesity, and diabetes. *Journal of Psychosomatic Research, 53,* 891-895.

Feagin, J. R. (1996) *The Agony of Education: Black Students at a White University.* New York: Rutledge.

Francis, L. J. & Evans, T. E. (1996). The relationship between personal prayer and purpose of life among churchgoing and non-churchgoing twelve to fifteen year old in the UK. *Religious Education, 91*, 9-21.

Frankl, B. G. & Hewitt, W. E. (1994). Religion and well-being among Canadian university students: The role of faith groups on campus. *Journal for the Scientific Study of Religion, 33,* 62-75.

Friedman, M. J. (2007). Historically black colleges vital to U.S. higher education. *USINFO* Retrieved February 29, 2008, from http://usinfo.state.gov.

Gillhan, J. E. (2003). Targeted population is not enough. *Prevention and Treatment, 6,* 215-229.

Gorsuch, R. L. (1995). Religious aspects of substance abuse and recovery. *Journal of Sociology Issues, 52,* 65-83.

Graham, S., Furr, S., Flowers, C. & Burje, M. T. (2001). Religion and spirituality in coping with stress. *Counseling and Values, 46,* 2-13.

Gray, B. A. & Jones, B. E. (1987). Psychotherapy and Black women: A survey. *Journal Of the National Medical Association, 79,* 177-181.

Greenberg, J., Solomon, S. & Pyszczynski, T. (1997). Terror management theory of self-esteem social behavior: empirical assessment and conceptual refinement. In M.P. Zanna (Ed.), *Advances in Experimental Social Psychology* (Vol. 29, pp 61-139). New York: Academic Press.

Griffin, M. L., Amodeo, M., Clay, C. (2006). Racial Differences in Social Support: Kin versus Friends. *American Journal of Orthopsychiatry, 76*(3), 374-380.

Haringsma, R., Engels, G. I., & Beekman, A. T. F. (2004). The criterion validity of the Center for Epidemiological Studies Depression Scale (CES-D) in a sample of self-referred elders with depressive symptomatology. *International Journal of Geriatric Psychiatry, 19*(6), 558-563.

Hays, W. C & Mindel, C. H. (1973). Extended kinship relations in black and white families. *Journal of Marriage and the Family, 35,* 51-57.

Helms, J. E. (1996). Toward a methodology for measuring and assessing racial identity as distinguished from ethnic identity. In G. Sodowsky & J. Impara (Eds.), *Multicultural Assessment in Counseling and Clinical Psychology* (pp.143-192). Lincoln, NE: Buros Institute of Mental Measurement.

Helms, J. E. (1990). *Black and White racial identity: Theory, Research, and Practice.* Westport, CT: Greenwood Press.

Hong, J. & Seltzer, M. M. (1995). The psychological consequences of multiple roles: The nonnormative case. *Journal of Health and Social Behavior, 36,* 386-398.

Horton, H. D., Thomas, M. E., & Herring, C. (1995). Rural-urban differences in Black family structure: An analysis of the 1990 census. *Journal of Family Issues, 16,* 298-313.

Hughes, M. & Demo, D. H. (1989). Self-perceptions of Black Americans: self-esteem and personal efficacy. *American Journal of Sociology, 95,* 132-159.

Jagers, R. J. & Smith, P. (1996). Further examination of the spirituality scale. *Journal of Black Psychology, 22,* 429-442.

James, G. D. & Bovbjerg, D. H. (2001). Age and perceived stress independently influence daily blood pressure levels and variation among women employed in wage jobs. *American Journal of Human Biology, 13,* 268-275.

Johnson, G. D & Matre, M. (1991). Race and religiosity: An empirical evaluation of a causal model. *Review of Religious Research, 32*, 252-266.

Johnson, T. L., Oates, A. C., Jackson, K. M., Miles, M. M., & Strong, L. E. (2003). Religious orientation and academic performance among college students. *Psi Chi,* 8, 153-161.

Jones, T. S. (1969). *Negro Education: A study of the private and higher schools for colored people in the United States*. New York, NY: Arno Press.

Kandel, D. B. & Davies, M. (1986). Adult sequelae of adolescent depressive symptoms. *Archives of General Psychiatry, 43*, 255-262.

Kelly, E. W. (1995). *Spirituality and religion in counseling and psychotherapy.* Alexandria, VA: American Counseling Association.

Kendler, K. S., Gatz, M., Gardner, C. O., & Pedersen, N. L. (2006). Personality and Major Depression: A Swedish Longitudinal, Population-Based Twin Study. *Archives of General Psychiatry, 63*, 1113-1120.

Kendler, K. S., Myers, J., & Prescott, C. A. (2005). Sex differences in the relationship between social support and risk for major depression: a longitudinal study of opposite-sex twin pairs. *American Journal of Psychiatry, 162*, 250-256.

Kendler, K. S., Gardner, C. O., & Neale, M. C. (2001).Genetic risk factors for major depression in men and women: Similar or different heritabilities and same or partly distinct genes? *Psychology Medicine, 31,* 605-616.

Kendler, K. S., Neale, M. C., & Kessler, R. C. (1993). The lifetime history of major depression in women. Reliability of diagnosis and heritability. *Archive of General Psychiatry, 50*, 863-870.

Kessler, R. C. (1995). The national comorbidity survey: preliminary results and future directions. *International Journal of Methods in Psychiatric Research, 5*(2), 139-151.

Knox, D., Langehough, S. O., Walters, C., & Rowley, M. (1998). Religiosity and spirituality among college students. *College Student Journal, 32*, 430-432.

Koenig, H. G., McCullough, M. E. & Larson, D. B. (2001). *Handbook of religion and health: a century of research reviewed.* New York: Oxford University Press.

Kornstein, S.G. & Clayton, A. H. (2002). In S. Kornstein & B. Wojcik (Ed.). *Depression.* New York, NY: The Guilford Press, pp. 147-159.

Koster, A., Penninx, B.W. J. H., & Bosma, H. (2005). Is there a biomedical explanation for socioeconomic differences in incident mobility limitation? *Journal of Gerontology Psychological Social Science, 60*, 1022-1027.

Kristenson, M., Eriksen, H. R., Sluiter, J. K . (2004). Psychobiological mechanisms of socioeconomic differences in health. *Social Science Medicine, 58*, 1511-1522.

Kuiper, N. A., Olinger, L. J. & Lyons, L. M. (1986). Global perceived stress level as a moderator of the relationship between negative life events and depression. *Journal of Human Stress, 12*, 149-153.

Landrine, H., & Klonoff, E. A. (1996). The schedule of racist events: A measure of racial discrimination and a study of its negative physical and mental health consequences. *Journal of Black Psychology, 22*(2), 144-168.

Landrine, H., & Klonoff, E. A. (1999). Cross Validation of the Schedule of Racist Events. *Journal of Black Psychology, 25*(2), 231 254.

Levinson, D. F. (2005). The genetics of depression: review. *Biological Psychiatry, 60*, 84-92.

Levin, J. S. & Taylor, R. J. (1998). Panel analyses of religious involvement and well-being in African Americans: Contemporaneous vs. longitudinal effects. *Journal for the Scientific Study of Religion, 37*, 695-709.

Levin, J. S., Chatters, L. M. & Taylor, R. J. (1995). Religious effects on health status and life satisfaction among Black Americans. *Journal of Gerontology: Social Sciences, 50*(B), S154-S163.

Lewinsohn, P. M.; Steinmetz, J. L., & Larson, D. W. (1981). Depressed-related cognitions: antecedent or consequence? *Journal of Abnormal Psychology, 90*, 213-219.

Lewinsohn, P. M., Hops, H., & Roberts, R. E. (1993). Adolescent psychopathology: Prevalence and incidence of and other DSM-III-R disorders in high school students. *Journal of Abnormal Psychology, 102*, 133-144.

Lewinsohn, P. M., Petit, J. W., & Joiner, T. E. Jr. (2003). The symptomatic expression of major depression disorder in adolescent and young adults. *Journal of Abnormal Psychology, 112*, 244-252.

Lincoln, C. E. & Mamiya, L. H. (1990). *The Black Church in the African American Experience*. Durham, NC: Duke University Press.

Looney, J. (1988). Ego development and Black identity. *Journal of Black Psychology, 15*, 41-56.

Lorant, V., Deliege, D., Eaton, W., Robert, A., Phillippot, P. & Ansseau, M. (2003). Socioeconomic inequalities in depression: a meta-analysis. *Journal of Epidemiology, 157*, 98-112.

Mackenbach, J. P., Kunst, A. E., Cavelaars, A. E., Groenhof, F., & Geurtis, J. J. (1997). Socioeconomic inequalities in morbidity and mortality in western Europe. *Lancet, 349*, 1655-1659.

Martin, J. K. & Nagayama-Hall, G. C. (1992). Thinking Black, thinking internal, thinking feminist. *Journal of Counseling Psychology, 39*, 509-514.

Mattis, J. S. (1997). The spiritual well-being of African Americans: A preliminary analysis. *Journal of Prevention and Intervention in the Community, 16*, 103-120.

McCullough, M. E. & Larson D. B. (1999). Religion and depression: a review of the literature. *Twin Resident, 7*, 149-170.

McEwen, M. K., Roper, L. D., Bryant, D. R., Langa, M. J. (1990). Incorporating the development of African American students into psychosocial theories of student development. *Journal of College Student Development, 31*(5), 429-436.

Melzer, D., Izmirlian, G., Leveille, S. G., & Guralnik, J.M (2001). Educational differences in the prevalence of mobility disability in age: the dynamic of incidence, mortality and recovery. *Journal of Gerontology Psychological Social Science, 56*, 294-301.

Miller, M. L., Moen, P., & Dempster-McClain, D. (1991). Motherhood, multiple roles, and maternal well-being: Women of the 1950's. *Gender & Society, 5*, 565-582.

Mitchell, S. L. & Dell, D.M (1992). The relationship between Black students' racial identity Attitude and participation in campus organizations. *Journal of College Student Development, 33*, 39-43.

Moran, P., & Eckenrode, J. (1991). Gender differences in the costs and benefits of peer relationships during adolescence. *Journal of Adolescent Research, 6*, 396-409.

Munford, M. B. (1994). Relationship of gender, self-esteem, social class, and racial identity to depression in blacks. *Journal of Black Psychology, 20*, 157-174.

Musgrave, C. F, Allen, C. E., & Allen, G. J. (2002). Spirituality and health for women of color. *American Journal of Public Health, 92*, 557-560.

National Center for Injury and Prevention and Control (1999). Suicide deaths and rates.

Neiman, D.G. (1994). *African Americans and education in the south, 1865-1900.* New York, NY: Garland Publishing.

Parham, T. A. (1982). *The relationship of Black students' racial identity attitudes to self-esteem, affective states, social class, and mental health.* Unpublished doctoral dissertation. Southern Illinois University, Carbondale.

Parham, T. A. & Helms, J. E. (1985a). Attitudes of racial identity and self-esteem in black students: An exploratory investigation. *Journal of College Student Personnel, 26*(2), 143–147.

Parham, T. A., Helms, J. E. (1985). Relation of racial identity attitudes to self-actualization and affective states of Black students. *Journal of Counseling Psychology, 32*, 431-440.

Pascarella, P. T., Edison, M., Nora, A., Hagedorn, S. L., & Terenzini, P. T. (1997). Additional evidence on the cognitive effects of college racial composition: A research note. *Journal of College Student Development, 37*, 494-501.

Paykel, E. S. (1991). Depression in Women. *British Journal of Psychiatry, 158*, 22-29.

Pettigrew, T. F. & Martin, J. (1987). Shaping the organizational context for black American inclusion. *Journal of Social Issues, 43*, 41-78.

Plant, A. E. & Sachs-Ericsson, N. (2004). Racial and ethnic differences in depression: the role of social support and meeting basic needs. *Journal of Consulting and Clinical Psychology, 72*, 41-52.

Pyant, C. T., & Yanico, B. J. (1991). Relationship of Racial Identity and Gender-Role Attitudes to Black Women's Psychological Well-being. *Journal of Counseling Psychology, 38*, 135-148.

Radloff, L. (1977). The CED-S Scale: a self report depression scale for research in the general population. *Psychological Measurement, 1*, 385-401.

Raymond, J. S., Rhoads, D. L., & Raymond, R. I. (1980). The relative impact of family and social involvement on Chicano mental health. *American Journal of Community Psychology, 8*, 557-569.

Reigier, D. A., Burke, J. D. & Burke, K. C. (1990). Comorbidity of affective and anxiety disorders in the NIMH Epidemiologic Catchment Area Program. In J.D. Maser & C.R. Cloninger (Eds.), *Comorbidity of Mood and Anxiety Disorders* (pp. 113-122). Washington, DC: American Psychiatric Press.

Richardson, B. L. & June, L. N. (1997). Utilizing and maximizing the resources of the African American church: Strategies and tools for counseling. In C.C. Lee (Ed.), *Multicultural Issues in Counseling: New Approaches to Diversity* (2nd ed., pp.155-170) Alexandria, VA: American Counseling Association.

Riolo, S. A.; Nguyen, T. A.; Greden, J. F. (2005). Prevalence of Depression by Race/Ethnicity: Findings From the National Health and Nutrition Examination Survey III. *American Journal of Public Health, 95*(6), 998-1000.

Robinson-Brown, D. & Gary, L. E. (1985). Social support network differentials among married and nonmarried African American females. *Psychology of Women Quarterly, 9*, 229-241.

Saab, P. G., Llabre, M. M., Fernander-Scott, A., Copen, R., Ma, M., DiLillo, V., et al. (2000). Ethnic differences in blood pressure regulation. In P.M. McCabe and N. Schneiderman (Eds.), *Stress, Coping and Cardiovascular Disease* (pp. 145-180). Mahwah, NJ: Erlbaum.

Sanchez, D. & Carter, R. (2005). Exploring the relationship between racial identity and religious orientation among African American college students. *Journal of College Student Development, 46*, 280-295.

Sanders-Thompson, V. L. (1991). Factors affecting the level of African American identification. *Journal of Black Psychology, 17*, 19-36.

Sanders-Thompson, V. L. (1999). Variables affecting racial-identity salience among African Americans. *Journal of Social Psychology, 139,* 736-747.

Santor, D. A., Zuroff, D. C., & Ramsay, J. O. (1995). Examining scale discriminability in the BDI and CES-D as a function of depressive severity. *Psychological Assessment, 7*(2), 131-139.

Skorikov, V. B.; Vandervoort, D. J. (2003). Relationships between the underlying constructs of the Beck Depression Inventory and the Center for Epidemiological Studies Depression Scale. *Educational and Psychological Measurement, 63*(2), 319-335.

Smith, T. B., McCullough, M. E., & Poll, J. (2003). Religiousness and depression: evidence for a main effect and the moderating influence of stressful life events. *Psychological Bulletin, 129*, 614-636.

Spencer, M. B., Fegley, S., & Harpalani, V. (2003). A theory and empirical examination of identity as coping: Linking coping resources to the self processed of African American youth. *Journal of Applied Development Science, 7*, 180-187.

Stanfeld, S. A., Head, J., Fuhrer, R., Wardle, J., & Cattell, V. (2003). Social inequalities in depressive symptoms and physical functioning in the Whitehall II study: exploring a common cause explanation. *Journal of Epidemiological Community Health, 57*, 361-367.

Stuckey, S. (1987). *Slave Culture; Nationalist Theory and the Foundations of Black America*. New York: Oxford University Press.

Sullivan, P. F., Neale, M. C., Kendler, K. S. (2000). Genetic epidemiology of major depression. Review and meta-analysis. *American Journal of Psychiatry, 157*, 1552-1562.

Taylor, S. E. & Seeman, T. E. (1999). Psychosocial resources and the SES-health relationship. *Annals New York Academy Science, 896*, 210-225.

Taub, D. J. & McEwen, M. K. (1992). The relationship of racial identity attitudes to autonomy mature interpersonal relationships in Black and White undergraduate women. *Journal of College Student Development, 33*, 439-446.

Thomas, C. & Thomas, S. (1971). Something borrowed, something black. In C. Thomas (Ed.), *Boys No More.* Beverly Hills, CA: Glencoe Press.

U.S. Census Bureau. (2001). Overview of race and Hispanic origin: Census 2000 brief.

U.S. Census Bureau. (2000). Statistical abstracts of the United States: The national data book. Washington, DC: Author.

U.S. Census Bureau. (1999). Statistical abstracts of the United States: The national data book.Washington, DC: Author.

U.S. Department of Health and Human Services. (2001). *Mental health: Culture, race, and ethnicity. A supplement to mental health: A report of the Surgeon General.* Rockville, MD: Substance Abuse and Mental Health Services Administration, Center for Mental Health Services.

Vandiver, B. J., Cross, W. E., Worrell, F. C., & Fhagen-Smith, P. E. (2002). Validating the Cross Racial Identity Scale. *Journal of Counseling Psychology, 49*, 71-85.

Vandiver, B. J. (2001). Psychological nigrescence revisited: introduction and overview. *Journal of Multicultural Counseling and Development, 29*, 165-173.

Vandiver, B. J., Cross, W. E., Fhagen-Smith, P. E., Worrell, F. C., Swim, J. & Caldwell, L. (2000). *The Cross Racial Identity Scale.* Unpublished scale.

Veroff, J., Kulka, R. A., & Douvan, E. (1981). *The Inner American: Self-portrait from 1957-1976.* New York: Basic Book.

Warheit, G. J., Holzer, C. E. & Schwab, J. J. (1973). An analysis of social class and racial differences in depressive symptomatology: A community study. *Journal of Health and Social Behavior, 14*, 291-299.

Warren, B. J. (1994). The experience of depression for African American women. In B.J. McElmurry & R.S. Parker (Eds.), *Second Annual Review of Women's Health.* New York: Nation League for Nursing Press.

Weissman, M. M., Bland, R. C., Xanino, G. J., Faravelli, C., Greenwald, S., Hwu, H. G. (1996). Cross-national epidemiology of major depression and bipolar disorder. *Journal of the American Medical Association, 276*, 293-299.

Weissman, M. M., Bland, R. C., Xanino, G. J., Faravelli, C., Greenwald, S., Hwu, H.G., et al (1997). The cross-national epidemiology of panic disorder. *Archives of General Psychiatry, 54*, 305-309.

Weissman, M. M., Wolk, S., Goldstein, R. B., Moreau, D., Adams, P., Greenwald, S., Klier, C. M., Ryan, N. D., Dahl, R. E., & Wickramaratne, P. (1999). Depressed adolescents grown up. *Journal of American Medical Association*, 281, 1013-1707.

White, C. L., & Burke, P. J. (1987). Ethnic role identity among Black and White college students: An interactionist approach. *Sociological Perspectives, 30*, 310-331.

Wilcox, H., Field, T., & Prodromidis, M. (1998). Correlations between the BDI and CES-D in a sample of adolescent mothers. *Adolescence, 33*(131), 565-574.

Windle, M. (1992). A longitudinal study of stress buffering for adolescent problem behaviors. *Developmental Psychology, 28*, 522-530.

Winokur, G., Coryell, W., Keller, M., Endicott, J., & Akiskal, H. (1993). A prospective follow- up of patients with bipolar and primary unipolar affective disorder. *Archives of General Psychiatry, 50*, 457-465.

Worthington, E. L. Jr., Wade, N. G., & Hight, T. L. (2003). The Religious Commitment Inventory--10: Development, refinement, and validation of a brief scale for research and counseling. *Journal of Counseling Psychology, 50*(1), 84-96.

Worrell, F. C., Vandiver, B. J., Cross, W. E. Jr (2004). Reliability and structural validity of Cross Racial Identity Scale scores in a sample of African American adults. *Journal of Black Psychology, 30*(4), 489-505

Yinger, J. (1995). *Closed doors, opportunities lost: The continuing cost of housing discrimination.* New York: Russell Sage Foundation.

Zimet, G. D., Dahlem, N. W, Zimet, S. G., and Farley, G. K. (1991). The multidimensional scale of perceived social support. *Journal of Personality Assessment, 52*, 30-41.

Appendix A

Center for Epidemiologic Studies Depression Scale (Radloff, 1977)

For each of the following statements, circle the choice that best indicates the extent of your agreement or disagreement as it describes your personal experience.

1 = Rarely or none of the time (less than 1 day)
2 = Some of or little of the time (1-2 days)
3 = Occasionally or a moderate amount of the time (3-4 days)
4 = Most or all of the time (5-7days)

1. I was bothered by things that usually don't bother me.
   1 2 3 4

2. I did not feel like eating; my appetite was poor.
   1 2 3 4

3. I felt that I could not shake off the blues even with help from my family or friends.
   1 2 3 4

4. I felt that I was just as good as other people.
   1 2 3 4

5. I had trouble keeping my mind on what I was doing.
   1 2 3 4

6. I felt depressed.
   1 2 3 4

7. I felt that everything I did was an effort.
   1 2 3 4

8. I felt hopeful about the future.
   1 2 3 4

9. I thought my life had been a failure.
   1 2 3 4

10. I felt fearful.
    1 2 3 4

11. My sleep was restless.

11. My sleep was restless.
1 **2** **3** **4**

12. I was happy.
1 **2** **3** **4**

13. I talked less than usual.
1 **2** **3** **4**

14. I felt lonely
1 **2** **3** **4**

15. People were unfriendly.
1 **2** **3** **4**

16. I enjoyed life.
1 **2** **3** **4**

17. I had crying spells.
1 **2** **3** **4**

18. I felt sad.
1 **2** **3** **4**

19. I felt that people disliked me.
1 **2** **3** **4**

20. I could not get "going".
1 **2** **3** **4**

Appendix B

Cross Racial Identity Scale (Worrell, Cross, & Vandiver, 2001)

Please read each statement and rate the extent to which you agree or disagree using the following scale.

1 = Strongly Disagree

2 = Moderately Disagree

3 = Mildly Disagree

4 = Neutral

5 = Mildly Agree

6 = Moderately Agree

7 = Strongly Agree

____ 1. As an African American, life in America is good for me.

____ 2. I think of myself primarily as an American and seldom as a member of a racial group.

____ 3. Too many Blacks "glamorize" the drug trade and fail to see opportunities that don't involve crime.

____ 4. I go through periods when I am down on myself because I am Black.

____ 5. As a multiculturalist, I am connected to many groups (Hispanics, Asian Americans, Whites, Jews, Gays & Lesbians, etc.)

____ 6. I have a strong feeling of hatred and disdain for all White people.

____ 7. I see and think about things from an Afrocentric perspective.

____ 8. When I walk into a room, I always take note of the racial make-up of the people around me.

____ 9. I am not so much a member of a racial group as I am an American.

____ 10. I sometimes struggle with negative feelings about being Black.

____ 11. My relationship with God plays an important role in my life.

____ 12. Blacks place more emphasis on having a good time than on hard work.

____ 13. I believe that only those Black people who accept and Afrocentric perspective can truly solve the race problem in America.

____ 14. I hate the White community and all that it represents

____ 15. When I have a chance to make a new friend, issues of race and ethnicity seldom play a role in whom that person might be.

____ 16. I believe it is important to have both a Black identity and a multicultural perspective, which is inclusive of everyone (e.g. Asians, Latinos, Gays, & Lesbians, Jews, Whites, etc.)

____ 17. When I look in the mirror at my Black image, sometimes I do not feel good about what I see.

18. If I had to put a label on my identity, it would be "American" and not African American.
19. When I read the newspaper or a magazine, I always look for articles and stories that deal with race and ethnic issues.
20. Many African Americans are too lazy to see opportunities that are right in front of them.
21. As far as I am concerned, affirmative action will be needed for a long time.
22. Black people cannot truly be free until our daily lives are guided by Afrocentric values and principles.
23. White people should be destroyed.
24. I embrace my own Black identity, but I also respect and celebrate the cultural identities of other groups (e.g. Native Americans, Whites, Latinos, Jews, Asian Americans, Gays & Lesbians, etc.)
25. Privately, I sometimes have negative feelings about being Black.
26. If I had to put myself into categories, first I would say I am an American and second I am a member of a racial group.
27. My feelings and thoughts about God are very important to me.
28. African Americans are too quick to turn to crime to solve their problems.
29. When I have a chance to decorate a room, I tend to select pictures, posters, or works of art that express strong racial-cultural themes.
30. I hate White people.
31. I respect the ideas that other Black people hold, but I believe that the best way to solve our problems is to think Afrocentrically.
32. When I vote in an election, the first thing I think about is the candidate's record on racial and cultural issues.
33. I believe it is important to have both a Black identity and a multicultural perspective, because this connects me to other groups (Hispanics, Asian Americans, Whites, Jews, Gays & Lesbians, etc.)
34. I have developed an identity that stresses my experiences as an American more than my experiences as a member of a racial group.
35. During a typical week in my life, I think about racial and cultural issues many, many times.
36. Blacks place too much importance on racial protest and not enough on hard work and education.
37. Black people will never be free until we embrace an Afrocentric perspective.
38. My negative feelings toward White people are very intense.
39. I sometimes have negative feelings about being Black.
40. As a multiculturalist, it is important for me to be connected with individuals from all cultural backgrounds (Latinos, Gays & Lesbians, Jews, Native Americans, Asian Americans, etc.)

Appendix C

Multidimensional Scale of Perceived Social Support
(Zimet, Dahlem, Zimet, & Farley, 1991).

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the "1" if you Very Strongly Disagree
Circle the "2" if you Strongly Disagree
Circle the "3" if you Mildly Disagree
Circle the "4" if you are Neutral
Circle the "5" if you Mildly Agree
Circle the "6" if you Strongly Agree
Circle the "7" if you Very Strongly Agree

---

1. There is a special person who is around when I am in need. (SO)
   1 2 3 4 5 6 7

2. There is a special person with whom I can share my joys and sorrows. (SO)
   1 2 3 4 5 6 7

3. My family really tries to help me. (Fam)
   1 2 3 4 5 6 7

4. I get the emotional help and support I need from my family. (Fam)
   1 2 3 4 5 6 7

5. I have a special person who is a real source of comfort to me. (SO)
   1 2 3 4 5 6 7

6. My friends really try to help me. (Fri)
   1 2 3 4 5 6 7

7. I can count on my friends when things go wrong. (Fri)
   1 2 3 4 5 6 7

8. I can talk about my problems with my family. (Fam)
   1 2 3 4 5 6 7

9. I have friends with whom I can share my joys and sorrows. (Fri)
   1 2 3 4 5 6 7

10. There is a special person in my life who cares about my feelings. (SO)
    1 2 3 4 5 6 7

11. My family is willing to help me make decisions. (Fam)
    1 2 3 4 5 6 7

12. I can talk about my problems with my friends. (Fri)
    1 2 3 4 5 6 7

Appendix D

Religious Commitment Inventory – 10 (Worthington et al., 2003)

Please rate the degree to which each of the following items apply to your religious beliefs.

1 = Not at all
2 = Not very much
3 = Somewhat
4 = Most of the Time
5 = Very Much

---

1. My religious beliefs lie behind my whole approach to life.
   1 2 3 4 5

2. I spend time trying to grow in understanding of my faith.
   1 2 3 4 5

3. It is important to me to spend periods of time in private religious thought and reflection.
   1 2 3 4 5

4. Religious beliefs influence all my dealings in life.
   1 2 3 4 5

5. Religion is especially important to me because it answers many questions about the meaning of life.
   1 2 3 4 5

6. I often read books and magazines about my faith.
   1 2 3 4 5

7. I enjoy working in the activities of my religious organization.
   1 2 3 4 5

8. I enjoy spending time with others of my religious affiliation.
   1 2 3 4 5

9. I keep well informed about my local religious group and have some influence in its decisions.
   1 2 3 4 5

10. I make financial contributions to my religious organization.

1 2 3 4 5

Appendix E

The Schedule of Racist Events (Landrine & Klonoff, 1996)

We are interested in your experiences with racism. As you answer the question below, please think about your ENTIRE LIFE, from when you were a child to the present. For each question, please click the number that best captures the things that have happened to you. Answer each question, TWICE, once for what has happened to you IN THE PAST YEAR, and once for what YOUR ENTIRE LIFE HAS BEEN LIKE.

Use these numbers:

1=If this has NEVER happened to you
2=If this has happened ONCE IN A WHILE (less than 10% of the time)
3=If this has happened SOMETIMES (less than 10%-25% of the time)
4=If this has happened A LOT (26%-49% of the time)
5=If this has happened MOST OF THE TIME (50%-70% of the time)
6=If this has happened ALMOST ALL OF THE TIME (more than 70% of the time)

---

1. How many times have you been treated unfairly by teachers and professors because you are Black?

How many times in the past year?

1 2 3 4 5 6

How many times in your entire life?

1 2 3 4 5 6

2. How many times have you been treated unfairly by your employers, bosses and supervisors because you are Black?

How many times in the past year?

1 2 3 4 5 6

How many times in your entire life?

1 2 3 4 5 6

3. How many times have you been treated unfairly by your coworkers, fellow students and colleagues because you are Black?

How many times in the past year?

1 2 3 4 5 6

How many times in your entire life?

1 2 3 4 5 6

4. How many times have you been treated unfairly by people in service jobs (store clerks, waiters, bartenders, bank tellers, and others) because you are Black?

How many times in the past year?

1 2 3 4 5 6

How many times in your entire life?

1 2 3 4 5 6

5. How many times have you been treated unfairly by strangers because you are Black?

How many times in the past year?

1 2 3 4 5 6

How many times in your entire life?

1 2 3 4 5 6

6. How many times have you been treated unfairly by people in helping jobs (doctors, nurses, psychiatrists, case workers, dentists, school counselor, therapists, social workers and others) because you are Black?

How many times in the past year?

1 2 3 4 5 6

How many times in your entire life?

1 2 3 4 5 6

7. How many times have you been treated unfairly by neighbors because you are Black?

How many times in the past year?

1 2 3 4 5 6

How many times in your entire life?

1 2 3 4 5 6

8. How many times have you been treated unfairly by institutions (schools, universities, law firms, the police, the courts, the Department of Social Services, the Unemployment Office and others) because you are Black?

How many times in the past year?

1 2 3 4 5 6

How many times in your entire life?

1 2 3 4 5 6

9. How many times have you been treated unfairly by people that you thought were your friends because you are Black?

How many times in the past year?

1 2 3 4 5 6

How many times in your entire life?

1 2 3 4 5 6

10. How many times have you been accused or suspected of doing something wrong (such as stealing, cheating, not doing your share of the work or breaking the law) because you are Black?

How many times in the past year?

1 2 3 4 5 6

How many times in your entire life?

1 2 3 4 5 6

11. How many times have people misunderstood your intentions and motives because you are Black?

How many times in the past year?

1 2 3 4 5 6

How many times in your entire life?

1 2 3 4 5 6

12. How many times did you want to tell someone off for being racist but didn't say anything?

How many times in the past year?

1 2 3 4 5 6

How many times in your entire life?

1 2 3 4 5 6

13. How many times have you been really angry about something racist that was done to you?

How many times in the past year?

1 2 3 4 5 6

How many times in your entire life?

1 2 3 4 5 6

14. How many times were you forced to take drastic steps (such as filing a grievance, filing a lawsuit, quitting your job, moving away, and other actions) to deal with some racist thing that was done to you?

How many times in the past year?

1 2 3 4 5 6

How many times in your entire life?

1 2 3 4 5 6

15. How many times have you been called a racist name like n____, coon, jungle bunny or other names?

How many times in the past year?

1 2 3 4 5 6

How many times in your entire life?

1 2 3 4 5 6

16. How many times have you gotten into an argument or a fight about something racist that was done to you or done to someone else?

How many times in the past year?

1 2 3 4 5 6

How many times in your entire life?

1 2 3 4 5 6

17. How many times have you been made fun of, picked on, pushed, shoved, hit or threatened with harm because you are Black?

How many times in the past year?

1 2 3 4 5 6

How many times in your entire life?

1 2 3 4 5 6

Appendix F

Demographic & Miscellaneous Information

1. What is your age? _____
2. What is your academic classification?

   ___ Freshman ___ Sophomore ___ Junior ___ Senior ___ Graduate Student
3. What is your academic major? _____
4. What was your graduating high school GPA?
   a. Below 2.0
   b. 2.0 – 2.5
   c. 2.5 – 3.0
   d. 3.0 – 3.5
   e. 3.5 – 4.0 or above
5. What is your current college GPA?
   a. Below 2.0
   b. 2.0 – 2.5
   c. 2.5 – 3.0
   d. 3.0 – 3.5
   e. 3.5– 4.0 or above
   f. NA – first semester of college
6. What was your father's highest level of education?

   ___ No High School Diploma ___ High School Diploma/GED

   ___ Some College ___ Bachelor's Degree

   ___ Graduate Degree ___ Don't Know/Not Applicable
7. If your father attended college did he go to a Historically Black College/University? ___ Yes ___ No ___
8. What is your father's current occupation

   _____
9. What was your mother's highest level of education?

   ___ No High School Diploma ___ High School Diploma/GED

   ___ Some College ___ Bachelor's Degree

   ___ Graduate Degree ___ Don't Know/Not Applicable
10. If your mother attended college did she go to a Historically Black College/University? ___ Yes ___ No

11. What is your mother's current occupation?

_____

12. Please check all of the collegiate groups you have involvement in at this time.

___ Sorority ___ Black Student Union ___ Service Organizations

___ SGA ___ Academic Honor Society ___ Religious Organization

___ Other, please describe _____

13. What is the zip code of your childhood home?

a. _____

b. ____ Don't Know

14. Please choose which best describes your parents' typical family income at present.

a. Under $20,000 per year.
b. $20,000 – $40,000 per year
c. $40,000 - $ 60,000 per year
d. $60,000 - $80,000 per year
e. $80,000 - $100,000 per year
f. $100,000 - $150,000 per year
g. $150,000 per year or more