BLAME IT ON THE STRESS: AN EXPLORATION OF COPING MOTIVATED SUBSTANCE USE BEHAVIOR IN AFRICAN AMERICANS

by

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(Under the Direction of EZEMENARI M. OBASI)

ABSTRACT

Extant literature highlights the propensity of African Americans to engage in substance use behaviors to modify negative affect. Coupled with the substance use culture on college campuses, African American undergraduates are particularly vulnerable to problem substance use behavior. Moreover, researchers have linked psychological distress to increased risk of substance use behavior. The purpose of this study was to explore coping behavior in a sample (N = 603) of African American undergraduates in the Southeast. More specifically, this study sought to explore the protective features ingrained in African culture that may serve to buffer the impact of these negative experiences. Findings suggest that race related and acculturative stressors were significant predictors of alcohol use and African centered coping behavior in this sample. Lastly, ethnocultural factors including worldview orientation, traditionalist acculturative strategy, and religiosity/spiritually mediated the relationships between stress and coping behavior.

INDEX WORDS: African American, acculturative stress, religion, alcohol use, culture, coping, race related stress, substance use, worldview

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DEDICATION

This dissertation represents the culmination of my educational journey to date. I dedicate this work, the effort it comprises, and the commitment it represents to my family; both given and chosen. It has been your unyielding support, encouragement, and graciousness that have made this possible. It is my prayer that each and every one of you knows that this work is as much a reflection of you as it is of me, and in that I hope that you are proud of the product.

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CHAPTER 1

INTRODUCTION

Purpose

The purpose of this study is to examine the coping processes of persons of African descent. To that end, this study seeks to explore the (1) the specific types of coping strategies (e.g., problem focused, emotion focused, and Africultural) employed to navigate specific types of stressors (e.g., general life, acculturative, race related) and (2) the extent to which culture influences the coping processes of persons experiencing significant stress. Ethnocultural variables will be examined as potential moderators of drug and alcohol consumption as a coping response to the aforementioned stressors. More specifically, this study seeks to establish the moderating effects of culture (as measured by worldview, acculturative strategies, and religious/spiritual beliefs and practices) on the stress-coping relationship, with specific attention to substance use behaviors. The rationale for this study stems from the emphasis in the extant literature on negative coping outcomes for persons of African descent in the response to chronic stress. Further, the over emphasis of negative coping outcomes detracts from understanding the benefits of culture in buffering against these negative outcomes. Additionally, there is limited research that employs a multidimensional assessment of cultural variables in understanding the buffering effects of cultural belief systems and behavioral practices in coping with stressors within this population.

Background and Context

The history of people of African descent (i.e., continental Africans, African Americans, Haitians, Jamaicans, Cubans, Brazilians, etc.) in the United States (U.S.) is turbulent. Centuries of forced slavery and racial segregation has had long-lasting, damaging psychological effects (through the degradation of culture) on persons of African descent, principally those living in the U.S. Despite over 40 years of Civil Rights legislation African Americans continue to experience significant disparities in health, status, and achievement in the United States. The origins of many of these disparities can be explained by examining the context in which these fallible systems persist and those whom they were designed to assist. White (1970) asserts that it is impossible to understand the lifestyle of Black people using theories designed by White psychologists to explain White people. Just the same, these disparities will continue to exist as long as persons of African descent are understood using traditional European American explanations. So while laws legislate the actions (i.e., what one can and can not do) of individuals, organizations, educational establishments, and the like, they cannot and do not legislate the belief systems of individuals which are arguably more detrimental to the experiences persons of African descent have in the U.S. Stated differently, although persons of African descent have gained access, the realities of covert racist practices and living within the dominant culture loom large and bring with them real and perceived stressors.

Historically, racial classifications (e.g., Black, White) were used to propagate messages of superiority and inferiority (Guthrie, 1976); where White was made synonymous with superiority and Black with inferiority. Although these assertions have

been widely refuted in the literature, racial classifications maintain a strong presence in the literature. Both racial and ethnic (Black and African American) classifications have since been used interchangeably in the literature when referencing persons of African descent across the Diaspora. Ethnicity captures common geographic origins, ancestry, family patterns, language, cultural norms, and traditions (Williams, 2005), and will be central to this study. In sum, an ethnic (e.g., acculturation, worldview, etc.) and racial (e.g., racism/discrimination, etc.) level of analysis will be used here to acknowledge the deep structure of culture and its influence on individual behavior as well as the racialized experiences of persons of African descent. Therefore, both Black and African American will be used interchangeably here as well to reflect the level of analysis (racial or ethnic) cited in the literature.

For decades, scholars (Azibo, 1996; Baldwin, 1986; Du Bois, 1907; Guthrie, 1976; Kambon, 1998; Myers, 1988; Parham, Ajamu, & White, 1999; White, 1970) have called attention to the need [specifically in the field of psychology] to understand persons of African descent in a culturally congruent context noting that failure to do so will in most instances lead to Western (Eurocentric) notions of pathology. Nobles (1991) asserted that the Africentric perspective is unique in that its foundation is "from the positive features of African philosophy which dictates the values, customs, attitudes, and behaviors of Africans in Africa and the New World" (p.47). The positive features of African philosophy expressed in the culture of African Americans that Nobles' noted are the interest of this study.

People of African descent represent an estimated 13.6% (41.8 million people) of the U.S. population; increasing more than a half-million residents since 2008 (U.S. Census Bureau, 2010). This includes 12.9% (39.6 million) that identified as being Black (Black, African American, or any self report that was of African descent) and 0.8% (2.3 million) that identified as being biracial with one of the races being Black. Despite the growth for persons of African descent, this group is projected to be the second slowest growing ethnic group in the U.S (Campbell, 1996). However, similar to the faster growing ethnic groups, African Americans experience significant social and economic disparity; the greatest of which is economic. For example, the Urban League's 2004 State of Black America reported that fifty-percent of Black (compared to 70% of Whites) owned their home, mean income for Blacks is substantially lower for men (approx. $16, 876) and women (approx. $6,370) when compared to their White counterparts, and the median wealth for Blacks is ten times lower than for Whites. African Americans are consistently more likely to live in poverty than European and Asian Americans (CDC, 2009), with poverty rates (more than 25%) for African Americans consistently exceeding the national average (14.3%) (IRP: Institute for Research on Poverty, 2009). What's more, if racism ceased to exist today, the economic disparities caused by racism would still be pervasive and persistent amongst Blacks as poverty becomes cyclical. Research has well documented the physiological (Green & Darity Jr, 2010; Hummer & Hamilton, 2010; Nuru-Jeter, Sarsour, Jutte, & Thomas Boyce, 2010; Stepanikova & Cook, 2008) and psychological (Calloway, 2006; Chilman, 1975; Gabbidon & Peterson, 2006; Julian Chun-Chung Chow, Jaffee, & Snowden, 2003; Mossakowski, 2008; Sellers & Neighbors,

2008) impact of poverty in underrepresented ethnic groups. These impacts work to create further need thus creating further disparity.

Disparities exist in the access to, and quality of mental health care such that underrepresented ethnic groups (African Americans, Native Americans and Alaska Natives, Asian Americans and Pacific Islanders, and Latino/a Americans) collectively experience a greater disability burden from mental disorders than do European Americans (Sue & Chu, 2003). This disparity is most likely reflective of inadequate provision of services rather than to inherent differences in the prevalence of mental health disorders. Such barriers (e.g., access and quality of care) may work to prolong the course of some disorders thus reducing the efficacy of future treatment.

In addition to disparate service provision and delivery, stressor disparities exist for specific cultural groups, principally when studying African Americans and race-related stressors (Mino, Profit, & Pierce, 2000). Much remains unknown with regard to the effects of discrimination on health (Williams, Neighbors, & Jackson, 2003). In their review of the extant literature Williams and Williams-Morris (2000) identified only thirteen studies investigating the mental health affects of racial/ethnic discrimination on African Americans. However, in the last decade there has been a noticeable increase in research efforts to understand the complex relationships that exist between discrimination and physical and mental health. For example, Taylor and Turner (2002) found perceived discrimination to be significantly related to depressive symptomology in a sample of young African American adults, such that a portion of the association between SES and depression arose from SES differences in perceived discrimination. Further, Seaton (Seaton, 2009) also found racial discrimination to be linked to diminished psychological

well-being, consistent with Fisher and colleagues (2000). In addition to depressive symptomology, Klonoff, Landrine, and Ullman (1999) found racial discrimination to significantly predict anxiety, somatization, obsessive-compulsive tendencies, and interpersonal sensitivity in African Americans. The negative consequences are often stratified along gender lines as well; often being worse for African American men than women (McCord & Freeman, 1990; Utsey & Hook, 2007). Merritt et al (2006) demonstrated that chronic exposure to racism is implicated in the onset of cardiovascular disease.

Adding to the literature on the adverse effects of racism and discrimination to physical and psychological well-being, the negative mental and physical health effects of chronic stress on the level and quality of functioning (Almeida, Neupert, Banks, & Serido, 2005; Clark, Anderson, Clark, & William, 1999), achievement (Brown, Parker-Dominguez, & Sorey, 2000) and overall life satisfaction (Ensel & Lin, 1991) of African Americans have been further documented. The stressors to which African Americans are exposed and their appraisals of stressors are reflective of their distinct history and sociocultural experiences in the U.S. (Brown et al., 2000; Jackson, Hogue, & Phillips, 2005; Jackson, Phillips, Rowland Hogue, & Curry-Owens, 2001). Given this unique and distinct history, stressors when compounded, exacerbate their individual adverse effects (McAdoo, 1982). There is evidence to suggest that African American adults and adolescents report a higher frequency of negative life events and daily hassles than do their European American counterparts (Jung & Khalsa, 1989). Several theories exist which attempt to explain how individuals mediate (cope) psychological distress that results from stressors (See Brondolo, Brady ver Halen, Pencille, Beatty, & Contrada,

2009 for review). For example, Khantzians' (1985) self-medication hypothesis asserts that individuals consume drugs and alcohol to regulate the negative affect resulting from stressors.

The notion that individuals consume alcohol to regulate an emotional experience is a commonly held belief. The prevailing belief is that alcohol related problems occur as a result of the amount of alcohol consumed, however, literature indicates that the motivated use of alcohol as a coping mechanism aimed at decreasing negative affect (i.e., psychological distress) predicts alcohol related problems even when controlling for level of consumption (Cooper, 1994; Cooper, Frone, Russell, & Mudar, 1995). The self-medication hypothesis (Khantzian, 1985) holds that individuals are motivated to reduce negative affect and regulate their emotions from exposure to psychological distress by choosing drugs that serve to alleviate and help to avoid (or escape) negative emotions. Livingston (1993) noted that African Americans display a tendency to use alcohol as a coping mechanism, supporting the self-medication hypothesis set forth by Khantzian and underscoring the importance of coping research within the African American community.

To date there is a plethora of research chronicling drinking trends in emerging adults (ages 18-25). The National Epidemiologic Survey on Alcohol Related Conditions (NESARC; 2006) reported that nearly 70 percent (approximately 19 million) of young adults in the United States consumed alcohol annually; 46 percent of which engaged in drinking that exceeded recommended daily (no more than four drinks for men; no more than three drinks for women) limits and 14.5 percent averaged consumption rates that exceeded the recommended weekly (no more than fourteen drinks for men; no more than seven drinks for women) limits.

As a whole, African Americans report lower rates of alcohol consumption (60.2% vs. 76.8%), bingeing (19.1% vs. 24.1%), heavy use of alcohol (4.6% vs. 7.8%) and identifying as an alcohol abuser or dependent (8.5% vs. 9.4%) when compared to European Americans (Substance Abuse and Mental Health Services Administration [SAMHSA], 2007). While alcohol consumption rates among African Americans (19%) are lower than those found in other racial/ethnic groups (Hispanics: 23.1%; American Indians: 26.4%; Whites: 30.1%) in the United States, research consistently finds that African Americans experience more negative health related outcomes than their European American counterparts (Center for Disease Control and Prevention [CDC], 2004; Center for Disease Control and Prevention [CDC], 2005; Naimi et al., 2003; SAMHSA, 2002, 2004). Furthermore, there is an overrepresentation of African Americans in alcohol and drug related problems, negative health outcomes (Wade, 1994), physiological consequences and mental health issues (CDC, 2009; National Institute on Drug Abuse, 2003; U.S. Department of Health and Human Services [USDHHS] Surgeon General's Report, 2001) including chronic disease (e.g., prostate cancer, stroke, heart disease, cirrhosis, fetal alcohol syndrome, hypertension, pancreatitis, etc.), depression, anxiety, and schizophrenia. The risk factors of incidence, morbidity, and mortality rates for these negative health outcomes are often greater for African Americans when compared to European American counterparts (CDC, 2005). Since 1990, the gap in life expectancy between Blacks and Whites has narrowed (by nearly 2 years) but persists. Life expectancy assessed at birth is 76 years for White males compared with 70 years for Black males and 81 years for White females compared with 77 years for Black females (CDC, 2009). The CDC measures the impact of disease on groups using a years of

potential life loss (YPPL) calculation. Further elucidating the problem, African Americans have a substantial number of years of potential life lost (YPPL) in comparison to European Americans for HIV (11x), homicide (9x), stroke (3x), prenatal diseases (3x), and diabetes (3x) (Obasi, 2009). Many of the factors contributing to this plight are preventable, as their causes are generally rooted in lifestyle circumstances and often exacerbated by poverty and limited access to resources.

Further, lifetime illicit drug use continues to be a pervasive problem in marginalized populations, particularly African American communities. African Americans (ages 12 and older) have the highest (10.1%) reported rates of current illicit drug use of any racial/ethnic group (Asians: 3.6%; Hispanics: 6.2%; Hawaiian/Pacific Islanders: 7.3%; Whites: 8.2%; American Indians: 9.5%) (SAMHSA, 2008). Seventeen percent of African American young adults report lifetime illicit drug; although not significantly different from European American youth (17.6%) (National Institute on Drug Abuse, 2003). Finally, African Americans are third among ethnic groups for rates of current smokers (20.7%) (CDC, 2009). While not illicit, smoking [cigarettes] is linked to a host of health concerns in African Americans, including smoking related cancers (Castro, 2004; Mickens, Ameringer, Brightman, & Leventhal, 2010). Notwithstanding the fact that drug use continues to be problematic in African-American communities, social factors, such as racial profiling, lead to overrepresentation of African Americans in criminal justice statistics and public drug treatment programs (National Institute on Drug Abuse, 2003).

There is paucity of scientific literature that examines the etiology of drug and alcohol related disparities that disproportionately affect African Americans. Research

findings based on European American samples are often extracted and overgeneralized to African American samples while sociocultural and ethnocultural factors go largely unacknowledged. There is however, literature that highlight the buffering effects of various sociocultural and ethnocultural variables on psychological distress. Sociocultural and ethnocultural factors such as education (Allen, 1992), perceived social support (Ajrouch, Reisine, Lim, Sohn, & Ismail, 2010; Utsey, Lanier, Williams, Bolden, & Lee, 2006), and religious practices (Ellison, Musick, & Henderson, 2008; Utsey et al., 2007), have shown to buffer the negative affects of psychological distress that contribute to increased rates of substance use and abuse. Studies including sociocultural and ethnocultural variables in their analyses not only highlight the protective features of these factors but also may help understand positive coping behaviors (in lieu of avoidant coping behaviors such as substance use). This further infers the saliency of ethnocultural factors in understanding the lower rates of alcohol use in light of mounting stressors for African Americans; however, these factors do not appear to have similar impacts on reducing illicit substance use behaviors in these communities.

In their summary of Africentric values, Randolph and Banks (1993) note that spirituality is central to the Afrocentric worldview. The positive effects of religion/spirituality on mental health are well documented (Ellison & Fan, 2008; Jang & Johnson, 2004; Johnson, VanGeest, & Ik Cho, 2002; Regnerus, 2003; Ross, 1990; Smith, McCullough, & Poll, 2003; D. R. Williams, Larson, Buckler, Heckmann, & Pyle, 1991). Previous research finds that people who are actively involved in religious practices or are religiously committed are less distressed than those who report little to no commitment to religious belief systems or practices (Mirowsky & Ross, 1989; Sherkat & Ellison, 1999).

Collectively, African Americans report higher levels of religious involvement than European Americans (Ellison & Fan, 2008; Pew Forum on Religion & Pubic Life, 2008). In addition to reporting higher levels of organizational religious involvement than European Americans in the form of service attendance, membership in religious organization, prayer, and Bible study, African Americans are also more likely than European Americans to employ religious coping strategies, and to report satisfaction with the outcomes of their religious coping efforts (Connell & Gibson, 1997; Ellison, 1993; Ellison & Taylor, 1996; Jang & Johnson, 2004; J. Kim, Heinemann, Bode, Sliwa, & King, 2000). Ellison (2008) notes that such collective participation may work to strengthen and affirm one's individual faith and closeness to their higher power. Further, individuals who describe themselves as having a strong religious faith report being happier and more satisfied with their lives (Levin, Taylor, & Chatters, 1994).

In summary, there is a plethora of research documenting the negative impacts of stress on physical and psychological functioning. Given this and other research that highlights young adults increased risk of alcohol use, the propensity of African American's to modify negative affect through coping motivated substance use, and stressors inherent to (e.g., time management, financial stressors, peer relationships) and in addition to (e.g., family stress, race related stress, etc) transitioning into a college environment, it is incumbent on researchers to continue to examine coping practices being utilized in this group. Culturally informed research that aims to investigate the cumulative effects of these factors in African Americans is necessary given what is known about the deleterious long-term effects of chronic stress and substance use on physical and psychological well-being.

Conceptual Underpinnings for the Study

Lazarus and colleagues (Lazarus & Folkman, 1984) proposed a process theory of stress that addressed the interaction between an external component (e.g., the environment) and an internal component (e.g., the stressor). Their transactional theory of coping (see Chapter 2 for a full review) is an appraisal-based model postulating that cognitive appraisals and coping processes are influenced interactively by a combination of personality-based and situational factors. Lazarus (1990) notes that the stress coping relationship is one in which the demands exceed or tax one's resources or a person's ability to adequately respond.

Lazarus and Folkman (1980; Folkman & Lazarus, 1985; Lazarus, 1981; Lazarus, Coyne, & Folkman, 1982; Lazarus, 1966; Lazarus & Folkman, 1984) propose that an individual's decision to engage in coping is driven by a set of cognitive appraisals [primary or secondary]. Primary appraisal is the process by which an individual appraises the relevance of a situation to self, while secondary appraisals are undertaken to assess the subjective perception of one's coping strategies, and personal and social resources that may be used to deal with the situation effectively.

Coping is defined as "the cognitive and behavioral efforts made to master, tolerate, or reduce external and internal demands and conflicts among them" (Folkman & Lazarus, 1980, p. 233). According to Folkman (1984), coping serves two functions: to regulate stressful emotions (emotion-focused coping) and to alter the troubled person-environment relationship causing the distress (problem-focused coping). In order to be effective coping must change over time and across diverse stressful conditions (Folkman & Lazarus, 1985). Therefore, coping affects subsequent stress reactions by altering ones

relationship with the environment for the better or by changing the way one attends to or interprets what is happening.

In summary, the transactional model proposes that persons determine the degree to which an event is relevant to personal well-being (cognitive appraisal) and then select appropriate strategies (coping) to adapt to the situation. The transactional model is helpful because it provides an overall framework (with minor modifications to account for culturally relevant stressors) for understanding the stress and coping of African Americans.

Statement of the Problem

Given the prevalence and pervasiveness of factors (racism/discrimination, acculturation, and stress) cited in the research literature contributing to the psychological distress of African Americans, it would stand to reason (in accordance with the self medication hypothesis) that African Americans would be at increased risk for drug and alcohol use. However, research (see Chapter 2 for review) also demonstrates that African American exhibit fewer substance use behaviors (particularly for alcohol consumption) than European Americans. The discrepancy between the ideology asserted by the former and that reflected in the latter line of research may be evidence of the expression of ethnocultural variables moderating substance use in African Americans. This study will explore the benefits of religiousness/spirituality, acculturative strategies, and worldview in moderating the relationship between psychological distress and substance use—a self-medicating coping strategy.

Hypotheses

The arguments advanced in this study are twofold: 1) that coping strategies will mediate that effects that stressors have on substance use behaviors and 2) that ethnocultural factors will moderate the coping strategies African Americans employ to navigating stressful experiences, such that culture will buffer the likelihood that one would turn to substances to alleviate negative affect associated with stress. This model posits that culture (as measured by religiousness/spirituality) will buffer the negative impact stress (as a cumulative measure of race-related and acculturative stresses) has on coping strategies and substance use behaviors. The primary aims of this study are as follows:

Primary Aim I: Investigate the relationship between stress, coping strategies, and substance use, specifically looking at meditational effects of coping strategies to better understand how coping strategies inform substance use behaviors. It is hypothesized that:

H1: Coping will mediate the relationship between stress and substance use.

(H1.1) There will be a positive linear relationship between stress and coping strategies that are used to alleviate the effects of experienced stressors.

(H1.2) There will be a negative linear relationship between coping strategies and substance use.

(H1.3) There will be a positive linear relationship between stress and substance use. More specifically, the higher the levels of general life, race-related and acculturative stress one reports, the greater their likelihood of

endorsing higher levels of substance use (e.g., alcohol use and illicit drug use).

(H1.4) Lastly, it is hypothesized that coping strategies will mediate the relationship between stress and substance use. More specifically, a reduction in the relationship between stress and substance use will be evidenced when the mediator (coping strategies) is added to the equation.

Primary Aim II: Investigate the role culture plays in moderating the relationship between stress and coping. Specifically looking at its moderating effects on coping strategies and substance use behavior. It is hypothesized that:

H2: Culture moderates the proposed mediation model.

(H2.1) More specifically, acculturative beliefs and behaviors will moderate the effects that stresses have on coping strategies.

(H2.2) Worldview orientation will moderate the effects stresses have on coping outcomes. More specifically, a worldview orientation rooted in Spiritualism will moderate the relationship between culturally congruent stressors and coping strategies consistent with Western and/or an Africentric orientation.

(H2.3) Commitment to a spiritual/ religious belief system will moderate the relationship between stressors and coping behavior; such that greater commitment to a religious or spiritual belief system will buffer the negative effects stressors have on employed coping strategies.

(H2.4) Acculturative beliefs and behaviors will moderate the effects that coping strategies have on substance use behaviors. For example, traditionalist acculturative beliefs and behaviors will moderate the relationship between

emotion focused coping strategies and substance use behaviors. Similarly, assimilationist beliefs and behaviors will moderate the relationship between coping strategies and substance use behaviors such that there will be a positive linear relationship with substance use.

(H2.5) Worldview orientation will moderate the effects coping strategies have on substance use. More specifically, a worldview orientation rooted in Spiritualism will have a negative linear relationship with substance use.

(H2.6) Commitment to a spiritual/ religious belief system will moderate the relationship between coping strategies and substance use. Such that those who identify a strong connection to a religious/spiritual belief system will be less likely to endorse substance use behavior.

Significance of Study

There have been significant research efforts focused on stress, coping, and coping outcomes (for review, see Chapter 2). However, few of these studies have focused efforts specifically on understanding the coping behaviors of African American young adults. There are large bodies of research on substance use in African Americans with emphasis on African American adolescents and African American adults (ages 35+), however, there is significantly less research on the group between the ages of 18-35. Researchers and health professionals alike have begun to look at stress as an integrative and dynamic process that impacts individuals socially, physically, mentally, and emotionally (Livingston, 1993), therefore, it seems important to understand the etiology and course of stress early in the lifespan in hopes of reducing its impact later in life. Secondly, the vast majority of research in this area utilizes a unidimensional approach to exploring the

influence of cultural factors (e.g., acculturation, worldview, or another cultural indicator) on coping outcomes. This study is unique in that it will use a multidimensional approach (religiosity and acculturative status) to explore the effects of culture on coping outcomes. Assessing such risk (i.e., racism/discrimination, acculturative stress) and protective factors (i.e., religion/spirituality, strong cultural orientation) can aid in early detection of persons who may be vulnerable to problems with coping motivated alcohol and drug use. Understanding the scope of the stress-coping relationship in young adults is particularly relevant given the complexities of this life stage, its frequent transitions, and emphasis on identity formation.

Definition of Key Terms

Acculturation: An interactive process between two groups in which one or both groups adopts beliefs, norms, and traditions from the other; or, an individual's process of cultural change (e.g., in values, attitudes, and behaviors) that results from extended contact with another, usually more dominant, culture.

Acculturative strategy: A person's acculturation preference or level of adopted acculturation modality (e.g., assimilation, marginalization, separation, or integration).

Acculturative stress: Stress that results from the difficulties and challenges associated with the acculturation process.

Culture: The values, beliefs, norms, symbols, behaviors, and historical traditions shared by a group of people.

Dominant culture: See "host culture."

Ethnic group: A group of persons who share a common cultural heritage and are believed to have common ancestry.

Ethnocultural: Of or pertaining to the culture of a particular ethnic group; describes behavior of an ethnic group that has a distinct culture

Host culture: The dominant, majority, or mainstream culture that a person is acculturating to; in this study, Western culture.

Religiosity: Tendency, patterns, or characteristics of an individual in relation to religious commitment.

Spirituality: Term for describing individual religious experiences.

Substance Use: The consumption of medicines, drugs, or other materials including prescription drugs, over-the-counter drugs, street drugs, alcohol, and tobacco

CHAPTER 2

LITERATURE REVIEW

Theoretical Framework

Lazarus and colleagues (1984; Lazarus & Folkman, 1984) proposed a process theory of stress that addressed the interactions between an external component (e.g., the environment) and an internal component (e.g., the stressor). Their transactional theory of coping has been referred to as the most widely accepted process-based model of coping (Sinha, 2001) and will serve as the framework for understanding how sociocultural and ethnocultural factors inform coping processes in this study.

Lazarus and Folkman were the first to propose a multidimensional (i.e., harm, threat, and challenge) model of coping shifting researcher's understanding of coping away from the predominant unidimensional model (i.e., activation as seen in General Adaptation Syndrome; see Selye, 1946) of the time. Transactional theory is an appraisal-based model of coping, postulating that individuals' cognitive appraisals and coping processes are influenced interactively by personality-based (or traits) and situational factors. Appraisal, in this view, is defined as the universal process that mediates between the demands, constraints, and resources of the environment and the goals and personal beliefs of the individual (Lazarus, 1990).

Coping is driven by a set of cognitive appraisals identified as either primary or secondary (Folkman & Lazarus, 1980; Folkman & Lazarus, 1985; Lazarus, 1981; Lazarus et al., 1982; Lazarus, 1966; Lazarus & Folkman, 1984). Primary appraisal

involves appraising the relevance of a situation to self (e.g. “How does this situation affect me?”). Secondary appraisal is the subjective perception of one’s coping strategies, and personal and social resources that may be used to deal with the situation effectively. Coping then, is defined as “the cognitive and behavioral efforts made to master, tolerate, or reduce external and internal demands and conflicts among them” (Folkman & Lazarus, 1980). Lazarus (1990) notes that the stress-coping relationship is one in which the demands of the stressor exceed or tax one’s ability to adequately respond.

Lazarus and Folkman (1984) identified three types of stress: harm, threat, and challenge. Harm is damage (psychological) or loss that has already happened. Threat is the anticipation of harm likely to be imminent. Challenge results from a person’s confidence about mastering the demands of stress by effectively mobilizing ones coping resources. These different kinds of psychological stress are embedded in specific types of emotional reactions. For example, threat is most often experienced as an unpleasant state of mind that blocks mental operations and impairs functioning, while challenge is often perceived as a motivator and is associated with expansive and often strong performance (Lazarus, 1993).

According to Folkman (1984), coping serves two functions: to regulate stressful emotional responses to the problem (emotion-focused coping) and to alter the troubled person-environment relationship causing the distress (problem-focused coping). Folkman and Lazarus (1980, 1985) have shown that both forms of coping are used in most stressful interactions and that the relative proportions of each vary according to how the encounter is appraised. Folkman and colleagues (1986) note that individuals use more problem-focused forms of coping in encounters they appraised as changeable, and more

emotion-focused coping strategies in situations they view as unchangeable. Researchers (Heppner, Reeder, & Larson, 1983; MacNair & Elliott, 1992) have demonstrated that individuals who exhibit more perceived skills in approaching and defining problems displayed a tendency to report the use of more problem-focused coping strategies. Additionally, participants reporting difficulties in regulating their emotions when problem solving tended to report higher use of emotion-focused coping strategies.

Further lines of coping research assert that individual's inability to tolerate strong affect is a primary motivator for self-medicating through substance use (Hall & Queener, 2007). Developmental theorists (e.g., Erikson, 1968) highlight the importance of individuals developing the ability to manage and regulate affect, such that they are able to control which emotions they will experience and how they will be expressed (Fischer, Kubitzki, Guter, & Frey, 2007). If attempts to manage affect fail, the propensity to artificially alleviate the negative affect through alcohol use increases (Catanzaro & Laurent, 2004). Although originally developed to explain the etiology of heroin and opiate dependence, the self-medication hypothesis (Khantzian, 1985) was also proposed to explain why some individuals abuse alcohol and other drugs (Bedi & Halikas, 1985; DiSalver, 1987) despite negative consequences. Such tension reduction models of drug use (Colder, 2001; Conger, 1956); posit that people use substances to avoid or alleviate negative affect. Specifically, this type of drinking has been directly correlated with alcohol-related problems (e.g., dependence, social isolation; (Cooper et al., 1995).

In sum, the transactional model proposes that persons determine the degree to which an event is relevant to personal well-being (cognitive appraisal) and then selects appropriate strategies (coping) to adapt to the situation (Scherer, Drumheller, & Owen,

1993). Although not conceptualized to understand the stress-coping process for persons of African descent, Lazarus' (Lazarus, 1999b) transactional theory of stress and coping may prove to be a useful framework for examining the psychological consequences of stress in African Americans given its allocation of attention to the role of contextual variability in appraisal of stressors.

Stress

Lerutla (2000) defined psychological distress as the emotional condition that one feels when it is necessary to cope with unsettling, frustrating or harmful situations. Researchers and health professionals alike have begun to look at stress as an integrative and dynamic process that impacts individuals socially, physically, mentally, and emotionally (Livingston, 1993). Among the general population, higher levels of stress have been shown to tax one's cognitive resources (Beasley, Thompson, & Davidson, 2003) and increase strain on the immune system (Livingston & Marshall, 1990). This strain on the body's systems is often referred to in the medical literature as allostatic load. Allostatic load is the cumulative physiological burden enacted on the body through attempts to deal with life's demands (Seeman, McEwen, Rowe, & Singer, 2001). The ability to successfully adapt to these demands is referred to as allostasis (Sterling & Eyer, 1988).

Allostasis and Allostatic Load

The prime importance of the appraisal and coping processes are that they affect adaptational outcomes, including somatic outcomes and the morale of individuals and groups (Gabbidon & Peterson, 2006; Peters, 2006). According to Lazarus (1999) somatic outcomes represent the physiological response to stressful interactions, including chronic

illness while morale reflects psychological well-being, focusing on positive and negative emotions. The physiological damages sustained to the body are the result of attempts to cope with chronic stressors. As has been previously discussed, stress is associated with both external and internal challenges to the body, which initiates a series of activations (arousals) of the body's emotional systems (Hennessy & Levine, 1979). Failure to sufficiently mobilize the body's regulatory systems, primarily the central nervous system, leads to illness (McEwen, 2008). When adaptive responses to challenges continually lie outside of normal operating ranges, wear and tear on regulatory systems occurs and allostatic load accumulates (Seeman et al., 2001). The allostatic load hypothesis postulates that persistent, long-term adversity leads to changes in the body's stress response and that these changes are responsible for deleterious health consequences (Peek et al., 2010). Personal behaviors (e.g., smoking, over eating, drinking, etc.) can further exacerbate the burden of chronic stress to the body (McEwen, 2008). Successful adaptation to stressors, or allostasis, underscores the physiological imperative that in order for an organism to survive it must be adaptable and have the ability to appropriately match environmental demands (Sterling & Eyer, 1988). Adverse social circumstances, such as exposure to social and economic stressors, have been linked to a variety of poor health outcomes in different racial/ethnic and age groups (Charasse-Pouélé & Fournier, 2006; Godoy et al., 2006; Kahn & Pearlin, 2006; Link & Phelan, 1995; Singer & Ryff, 1999; Thoits, 1995).

Multiple studies indicate that higher scores on measures reflecting biological parameters (e.g., the hypothalamic-pituitary-adrenal (HPA) axis, sympathetic nervous system, and cardiovascular system) predict four major outcomes; cardiovascular disease,

decline in physical functioning, decline in cognitive functioning, and mortality (Carlson & Chamberlain, 2005; Crimmins, Johnston, Hayward, & Seeman, 2003; Geronimus, Hicken, Keene, & Bound, 2006; Seeman & Singer, 1997; Seeman et al., 2001; Seeman et al., 2004). Additionally, it is the cumulative effects of prolonged dysregulation across multiple systems that negatively impact allostatic load, while no one biological indicator alone adequately predict decline (Seeman et al., 2001). Trends in allostatic load research are shifting to understand racial/ ethnic differences in the effects of allostatic load to illuminate related health disparities (Green & Darity Jr, 2010).

In their examination of ethnic differences, Peek and colleagues (2010) note that due to the strains associated with experiences of discrimination, institutionalized racism, and lower socioeconomic position, African Americans experience an accumulation of stressful life events that may work to increase allostatic load. The ramifications of accumulated stress are poorer health outcomes in middle and late adulthood. While not of immediate interest in this study, the late onset of the health problems may be directly linked to the appraisal of stressors and the use of early coping strategies. Understanding that these negative health consequences are directly linked to adverse social and economic stressors implies that they are able to be modified. It is incumbent upon researchers to understand how coping is enacted in younger populations to improve quality of health later in life.

General life stress

McAdoo (1982) argues that inequities in the social structure (e.g., inadequate preventative health care, substandard community resources, outdated educational curriculums, etc.) expose African Americans and other underrepresented ethnic groups to

more life event stressors than their European Americans counterparts. Furthermore, there is evidence that African American adults and adolescents tend to report a higher frequency of negative life events and daily hassles than European Americans (Jung & Khalsa, 1989). College students are a particularly vulnerable group to experience stress given the many adjustments that accompany this transition. College presents young adults with opportunities that may compound stress (Arnett, 2000; Negga, Applewhite, & Livingston, 2007) including being away from home (often for the first extended period of time), maintaining personal relationships and family obligations (Skowron, Wester, & Azen, 2004), financial obligations (Frazier & Schauben, 1994), academic load (Crespi & Becker, 1999), social strain (D'aurora & Fimian, 1988; Prillerman, Myers, & Smedley, 1989) and learning effective time management skills. Skowron and colleagues (2004) demonstrated that the ability to modulate affect, maintain a clear sense of self, and balance intimacy and autonomy in significant relationships mediate the effects of these stressors, particularly financial and academic stress, on the adjustment process as an extension of one's coping resources.

Stressors can manifest themselves in poor choices, poor health, and negative academic consequences (Negga et al., 2007). Adolescents and college students are subject to a variety of negative coping outcomes including smoking (Naquin & Gilbert, 1996), drinking (McCormack, 1996; Morgan, 1997), experimenting with illegal drugs (Hudd et al., 2000), suicidal ideation (CDC, 1997; Walker, Obasi, Wingate, & Joiner, 2008) and unhealthy lifestyle habits such as poor diet and lack of sleep (Hudd et al., 2000). On the contrary, successful negotiation of this transition has been linked to better psychological adjustment, fewer risky behaviors, and academic success (Eccles,

Wigfield, Midgley, & Reuman, 1993; Petersen et al., 1993). Additionally, social support has been shown to buffer the effects of stress (Ensel & Lin, 1991; Thoits, 1995).

Race -related stress

As with other disparities, stressor disparities can be found among specific racial groups (Mino et al., 2000). One such disparity is that of race-related stressors. Perceived racism is the belief (appraisal) that one has been treated unfairly because of ones race. Racism is an omnipresent, painful reality confronting African Americans in the U.S. (Peters, 2006) and can be aptly and appropriately characterized as common and patterned (Swim, Hyers, Cohen, Fitzgerald, & Bylsma, 2003). Therefore, underrepresented racial/ethnic group members experience stress not only from overt discrimination in ambiguous situations but also from the anticipation of discrimination in upcoming events (Weiten & Lloyd, 2006). Its effects are chronic and cumulative and deteriorate the overall health and well-being of the individual (Peters, 2006).

African Americans report frequent experiences of racial discrimination. Empirical studies found that the majority [98% reported by Landrine and Klonoff (1996) and 60% reported by Browman, Mavaddat and Hsu (2000)] of African American participants reported experiencing some form of racial discrimination over the past year, and all participants reported being the target of racial discrimination at some point in their lifetime. Research has found that racism, in the form of discrimination, to be negatively associated with African Americans' well-being.

The psychological and physical consequences associated with racism have been well supported and documented both in quantitative (Dion & Earn, 1975; Dion, Dion, & Pak, 1992; Pak, Dion, & Dion, 1991) and qualitative (Barnes & Ephross, 1994; Feagin,

1991) studies. Scholars have illuminated the physiological and psychological domains that are affected by the stress of racism (Armstead, Lawler, Gorden, Cross, & Gibbons, 1989; Brown et al., 2000; Clark et al., 1999; Harrell, Hall, & Taliaferro, 2003; Krieger & Sidney, 1996; Outlaw, 1993; Utsey, Payne, Jackson, & Jones, 2002). The affected physiological domains include suppressed immune and cardiovascular functioning resulting in a host of physical ailments (e.g., common colds, hypertension, cardiovascular disease, etc.) and premature death (Tovar-Murray & Munley, 2007). Similarly, race-related stress can adversely affect psychological functioning and has been linked to feelings of despair, anger, paranoia, frustration, hopelessness, and helplessness (Clark et al., 1999).

Broman (2007) found that perceived discrimination also plays a significant role in the alcohol use behaviors of African American college students; such that the greater the perceived discrimination, the greater the alcohol use behaviors. Tran and colleagues (2010) corroborated these findings in a sample of African-born immigrants, and go on the note that perceived discrimination was also linked to current smoker status in Asian immigrant and binge drinking in Hispanic/Latino immigrants. Utsey and colleagues (2002) note that for African Americans the intense emotionality experienced as a result of racism may be exacerbated by a lack of effective coping skills to successfully ward off the detrimental effects of racism.

An increasing number of studies suggest that coping strategies may impact the effect of racism on African Americans' well-being (Bynum, Burton, & Best, 2007; Clark et al., 1999; Utsey et al., 2006; Williams, Yu, Jackson, & Anderson, 1997). Research suggests that by minimizing the effects of race-related stress on well- being, African

Americans are able to heighten their connection to their group identity (Utsey et al., 2002). One study demonstrated the protective effects of age, SES, and educational attainment on the effects of race-related stress to overall self-report of quality of life such that those reporting higher social class, and higher educational attainment also reported higher quality of life (Tovar-Murray & Munley, 2007). Given the pervasive nature of the experiences of racism in the lives of African Americans and their negative consequences, understanding the effects of race-related stress and factors that may influence African Americans' well-being is an area worthy of further inquiry.

Acculturative Processes and Strategies

Another way of understanding the impact of interethnic contact on the culture and health of people of African descent in the U.S. is by advancing the understanding of acculturation within this group. *Acculturation* "comprehends those phenomena which result when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original culture patterns of either or both groups" (Redfield, Linton, & Herskovits, 1936, p. 149). Traditional conceptualizations of acculturation have taken a unidimensional approach contending that individuals must lose their own cultural characteristics to gain characteristics from other groups for successful adaptation. More specifically, historical notions of acculturation suggest a process by which individuals understand and incorporate values, beliefs, and traditions of the host culture (Berry, 1980). Contemporary conceptualizations take a multidimensional approach that place both cultures on different continua indicating an individual's ability to maintain their culture of origin while adopting characteristics from other groups deemed appropriate for successful cultural adaptation (Berry, 2003). Berry (1980)

identified four acculturation stances (assimilation, integration, rejection, and deculturation) later termed assimilation, integration, segregation, and marginalization (Berry, 1997) that one might assume throughout the acculturative process. At one end of the continuum (asssimilaton) one's own cultural orientation is abandoned for that of the host culture and at the other end of the continuum a rejection of all beliefs and values of the host culture (segregation) and preservation of those related to one's own culture.

Although the emphasis in the acculturation literature is on underrepresented groups the acculturative processes of Africans/African Americans is grossly under studied. So much so that scholars have brought awareness to this gap in the literature (Walker, Utsey, Bolden, & Williams, 2005b) and offered rationales for the oversight (Landrine & Klonoff, 1996). In addition to generational effects of the acculturation process, several variables have been shown to influence acculturation including familial socioeconomic status (Farver, Bhadha, & Narang, 2002; Franco, Cuadra, Tabol, Zea, & & Peterson, 1998), and age (although these have not been substantiated in African American samples) (Farver et al., 2002; Franco et al., 1998; Guilamo-Ramos, Jaccard, Johansson, & Turrisi, 2004), group and environmental factors (Obasi & Leong, 2009) such as cultural distance (differences in psychological characteristics, such as attitudes or values) (Suanet & Van, 2009), interethnic history, and reason for contact (Sam & Berry, 2006). These factors are said to negatively affect the acculturation process and heighten acculturative stress.

According to Berry (Berry, 1997; Berry, 2003), *acculturative stress* is the result of failing to adequately navigate the cultural changes individual's experience and maintains an inverse relationship with psychological and physical well-being. Anderson

(Anderson, 1991) contends that because African Americans often have values that differ from those of the dominant culture, they frequently feel pressure to adapt to or even adopt a Eurocentric orientation. LaFromboise and colleagues (1993) provided support for biculturalism in that individuals who can effectively navigate the demands of both their own culture and the dominant culture may exhibit increased cognitive functioning translating to increased mental health. Further support of biculturalism and its positive effects on mental health have been demonstrated by other researchers as well (see Kim & Omizo, 2005). It is important to note however, that these positive effects have been demonstrated in Asian American samples and may not fully or adequately encompass the experiences of African Americans. Further, Obasi and Leong (2009) found biculturalism to accompany increased levels of psychological distress in African American. The need to be bicultural in a hostile environment may cause tension and subsequently acculturative stress (Greene, 1990).

Moreover, findings have linked acculturative stress to poorer health outcomes for underrepresented ethnic groups. Greater acculturative stress increases the risk of psychological problems (Koreans: Park, 2009; Ghanians: Knipscheer, De Jong, Eleonore E. M., Kleber, & Lamptey, 2000), hypertension (Koya & Egede, 2007), suicide (Walker, 2007), and alcohol and substance use disorders (Johnson et al., 2002; Torres Stone & Meyler, 2007). Additionally, greater levels of acculturative stress in underrepresented populations has been linked to higher rates of perceived discrimination (Ye, 2006) and dissatisfaction with social support systems (Thomas & Choi, 2006). A number of researchers have attempted to identify predictive factors that may explain the level of acculturative stress (Berry, Kim, Minde, & Mok, 1987; Berry, Kim, Power, & Young,

1989; Berry, 1992; Liebkind, 1996; Sam & Berry, 1995; Ward, 1996; Ward & Kennedy, 1993; Ward & Kennedy, 1994; Ward & Rana-Deuba, 1999). Broadly, these factors fall into one of two groups: (1) features of the original and host culture (cultural, political, economic, social) and (2) individual characteristics (demographic variables, characteristics of personality, socio-cognitive and motivational factors) (Kosic, 2004).

There is substantial support for the buffering effects of social support in alleviating acculturative stress (Koreans, Han, Kim, Lee, Pistulka, & Kim, 2007; Koreans and Indians, Thomas & Choi, 2006; Latinos, Torres Stone & Meyler, 2007; Chinese, Ye, 2006; African Americans, Greening & Stoppelbein, 2002; Kimbrough, Molock, & Walton, 1996). Specific to African Americans, a positive association between social support from friends and dispositional optimism has been reported (Mattis, Fontenot, & Hatcher-Kay, 2003). Similarly, low levels of social support in African Americans have been linked to acculturative stress (Joiner Jr. & Walker, 2002; Kimbrough et al., 1996) and increased risk of suicide (Walker, 2007; Walker, Utsey, Bolden, & Williams, 2005a).

It has been noted that in the acculturation process, protective factors ingrained in one's culture of origin (e.g. strong religious values, extended family networks/kinships, strong sense of spirituality) are neglected to accommodate the new ideologies of the host culture (Sue & Fujino, 1991). Persons who subscribe to collectivistic value systems are likely to experience greater levels of acculturative stress in the United States, thus the positive effects of social support to their well-being may be greater than that on the mainstream American population. According to Eshun (1999), social support among people from collectivistic cultures is a significant contributor to optimistic attitudes towards the future arguing that these individuals are more likely to feel that they can

count on the support of others in their time of need. Further, involvement in activities that generate social support further reduce the impact of acculturative stress (Guendelman & Abrams, 1995).

Coping

Individuals experiencing stress often have to cope with inadequately met demands from internal or external factors by utilizing the resources at their disposal (Folkman & Lazarus, 1988; Lazarus, 1999a). Not all responses to stress produce desired results, and several coping responses have been investigated in that regard, including self-blame (Bolger, 1990; McCrae & Costa, 1986), wishful thinking (Bolger, 1990; Felton, Revenson, & Hinrichsen, 1984; Folkman & Lazarus, 1985), escapism (Rohde, Lewinsohn, Tilson, & Seeley, 1990), overt efforts to deny the stressor's reality (Carver et al., 1993), self-distraction or mental disengagement (Carver, Scheier, & Weintraub, 1989), or giving up on the goals with which the stressor is interfering (Carver et al., 1989). The evidence presented in these and other studies indicates that these types of avoidant coping strategies are often counter productive to desired outcomes.

Coping Strategies

Coping strategies are a wide variety of behaviors and thoughts employed to handle the impact of a stressful situation (Lazarus & Folkman, 1984). They can either facilitate or impede both mental and physical health (Clark & Hovanitz, 1989; Endler & Parker, 1990a; Endler & Parker, 1990b; Suls & Fletcher, 1985) and play a significant role in adaptation to psychological stress. Thus we either alter our circumstances, or alter how we interpret them to make them appear more favorable.

Culture has been closely linked to coping practices as well. Daly et al. (1995) found that African Americans preferred group centered coping strategies (e.g., family, community, and social network support) and relied on religious/spiritual practices (e.g., prayer, meditation) to cope with adversity. Others have noted that African Americans preferred coping strategies related to guidance from elders, engagement in rituals and affiliations with other (Jackson & Sears, 1992; Mattis et al., 2003; Utsey, Ponterotto, Reynolds, & Cancelli, 2000). Utsey and colleagues (2007) note that while these strategies are not unique to African Americans, they are indicative of a shared cultural worldview among African Americans.

Substance Use and Abuse

Substance abuse has been associated with a host of health problems as well as impaired social, relationship, and vocational functioning (Bassuk, Buckner, Perloff, & Bassuk, 1998; Degenhardt et al., 2008; Elliott, 2000; Wu, Temple, Shokar, Nguyen-Oghalai, & Grady, 2010). Higher rates of substance use in high-risk subgroups are well documented (Bassuk et al., 1998; Britton, 2004; Hingson & Zha, 2009; Perron et al., 2009). Persons are considered to be at high risk as a result of characteristics of the individual (e.g., predisposition to addiction or personality type); family (e.g., living in poverty or with neglecting, abusive, or substance abusing parents); and community (e.g., urban/ inner city residence, availability of and access to drugs) (Beatty, 1994); many of which have been shown to be overrepresented in the African American community. However, research has consistently demonstrated that African Americans report lower levels of most licit and illicit drugs than do European Americans [in adolescents and

young adulthood] (Horton, 2007; Johnston, O'Malley, Bachman, & & Schulenberg, 2011; Williams, Newby, & Kanitz, 1993).

Generally, attention in young adult populations emphasizes age of onset of substance use, reporting that these behaviors often predict progression to other substances in the future. The progression is such that tobacco and alcohol use is initiated early in adolescence, and for youth who advance their substance use move on to marijuana followed by illicit substances (Kandel, 2002). Findings from these studies hold that the age of onset and predictable progress of substance use hypotheses do not hold true for those from disadvantaged populations (Bassuk et al., 1998; Mackesy-Amiti, Fendrich, & Goldstein, 1997). For example, Vaughn and colleagues (2008) found that African Americans (37.9%) were more likely than European Americans (17.3%) to initiate marijuana use before cigarettes. Early alcohol and marijuana use increase the risk of using illicit substances such as cocaine or heroin later in life (National Center on Addiction and Substance Abuse, 1994; National Center on Addiction and Substance Abuse, 1997; Office of Applied Studies, 2004; Trimboli & Coumerlos, 1998).

In addition to ethnic group difference regarding substance use trajectory, research demonstrates ethnic group differences in age of initiation (Finkenauer, Pomerleau, Snedecor, & Pomerleau, 2009), drug preference (Windsor & Dunlap, 2010), and severity of negative consequences associates with substance use (Beatty, 1994; Grace, 1992; Horton, 2007). Windsor and Dunlap (2010) found that while African Americans report exposure to multiple substances, they endorse regular use of crack, cocaine, heroin, marijuana, alcohol, and tobacco and make further distinction between substances with

more useful effects [feeling more relaxed and having deeper thoughts] (e.g., alcohol and marijuana) and those with more harmful effects (e.g. crack, cocaine, and heroine).

With specific regard to college students, researchers consistently link alcohol use to coping behaviors providing support for the various theories that propose models of affect modulation with the use of substances (e.g., tension reduction models, self-medication theories, etc). Boume & Light (1979) characterize the pattern of drinking in African American communities as heavy weekend drinking, or escapist drinking – drinking to escape from the negative aspects of life (Cuhalan & Cisin, 1968). Brittons' (2004) investigation provided support for these theories while underscoring the complexity of the relationship between coping and alcohol use and consequences.

In addition to the existing literature on coping and substance use, significant attention to select cultural variables that influence coping style and outcome can also be found. For example, acculturation has been linked to alcohol use, drug use and smoking behaviors (Caetano & Clark, 2003), although the vast majority of this literature has focused on Latino and indigenous populations. Assessment of cultural variables in stress and coping research continues to be ripe with opportunity to further understanding in this area.

Culture

Worldview

According to Myers (1988), worldviews vary across cultural groups and determine how individuals perceive, view, think, feel, and experience the world. Africentric worldview scholars contend that an Africentric worldview plays an important role in the psychological adjustment of African Americans (Azibo, 1996; Baldwin &

Bell, 1985; Parham, 2002). An Africentric worldview incorporates the behaviors, beliefs, and values of people of African heritage (Neblett Jr., Seaton, Powell Hammond, & Townsend, 2010). Kambon (1996) purports that this worldview holds four basic characteristics essential to its understanding "(a) it generates the construction of African social reality from the framework of the history, culture, and philosophy of African civilization, (b) it recognizes and articulates the basic continuity of the African worldview throughout the diverse African populations around the globe; (c) it recognizes and articulates the basic distinctness and independence of the African worldview; and (d) it projects the African survival thrust as the center of African social reality" (p. 56). Researchers (Obasi, Flores, & James-Myers, 2009) have demonstrated that African Americans are significantly more likely to endorse an African worldview orientation than European Americans.

An Africentric worldview may positively influence psychological adjustment by buffering the impact of stress on health (Myers & Brown, 1996). Utsey and colleagues (2008) supported this claim, noting that endorsing a cultural orientation consistent with African American cultural values predicted psychological functioning and subjective well-being in a sample of African American undergraduate students. Further, Neblett and colleagues (2010) found that an Africentric worldview buffered the association between perceived stress and depressive symptoms. Those who endorsed an Africentric worldview were less likely to employ emotion-focused [affect regulating] coping strategies.

An extension of the Africentric worldview literature is that which focuses on the centrality of religion or spirituality to the Africentric worldview. Researchers have

documented that religion and spirituality represent important resources for coping and social support for persons of African descent (Constantine, Donnelly, & Myers, 2002; Utsey, Adams, & Bolden, 2000; Utsey et al., 2007; Utsey et al., 2008).

Religion and Spirituality

Religion and spirituality are especially important for African Americans. Through much of American history, religious institutions have occupied an important position in Black society. Within many African-American communities religious institutions, especially churches, hold a symbolic centrality. While not of central interest to this study, it is important to note that the history of religion in African/African American communities is complex. The complexity of religion in African/African American communities can be better understood through a historical lens of slave religion. Raboteau (2001) asserts that although Muslim and Christian Africans were swept up in the slave trade, the vast majority of those enslaved practiced the traditional religions of their African ancestors. Years of contact with Catholic European colonizers spurred the blending of Catholic religious practices and the religions of Africa into new religions (e,g., Candomblê, Santería, Vodou), particularly in the predominantly Catholic countries of South America and the Caribbean. While these religions incorporated the Catholic and Indian influences of their captors, they remained predominantly African in theological orientation, beliefs, and ritual practices. In the predominantly Protestant context of North America, religious revivals become the conduit for the conversion of large numbers of African slaves to [American] Protestant Christianity (particularly Methodist and Baptist denominations) beginning in 1739; efforts before this time, characterized by a focus on catechizing, proved less successful (Raboteau, 2001). The growth of Methodist

and Baptist churches between 1770 and 1820 changed the religious landscape of the South by bringing large numbers of enslaved Africans into the church and introducing them to the basics of Christian beliefs and practice (Raboteau, 2004). Religious scholars argue that this marked the birth of the Black church, and by extension began a process of forced assimilation.

Religion and religious institutions in African Americans have had a profound impact on individuals and broader black communities. Because churches were among the few institutions able to be controlled by persons of African descent, participation in organized religious activities historically offered opportunities for social interaction and social status that were not available in an otherwise White dominated society (Ellison, 1993). Therefore the church has played a significant role in the provision of social support, services, and advocating for social change for African Americans. In the past decade, a wealth of research has shown direct benefits of religion on mental health (Bartley & Roesch, 2010; Bierman, 2006; Ellison et al., 2008; Hackney & Sanders, 2003; Jang & Johnson, 2004; Johnson et al., 2002; Koenig, McCullough, & Larson, 2001; Regnerus, 2003; Ross, 1990; Williams et al., 1991).

Smith (2003) noted that "American religions promote a variety of beliefs and practices that can help believers cope with the stress of difficult situations social-psychologically, to process difficult emotions, and to resolve interpersonal conflicts, and so enhance the well-being and life capacities of [people]" (p. 23). Black religious institutions are cohesive spiritual and social communities that foster the religious and social well-being and integration of individuals and families (Taylor, Chatters, & Levin, 2004). Boland (2000) notes that spirituality allows one to access inner resources to cope

with adversities, facilitate resilience, and indirectly promote positive health outcomes. Such positive effects have been linked to recovery from sexual assault and psychological well-being (Ahrens, Abeling, Ahmad, & Hinman, 2009), daily stress (Bartley & Roesch, 2010), discrimination (Bierman, 2006), and psychological distress (Ellison et al., 2008) among other things.

Previous research on mental health finds that people who are actively involved in religious activities or are religiously affiliated are less distressed than those who are not (Mirowsky & Ross, 1989; Sherkat & Ellison, 1999). Further, religious involvement appears to minimize risky behaviors, buffer stress, and help individuals find meaning in life (Worthington, Kurusu, McCullough, & Sandage, 1996).

Collectively, African Americans report higher levels of religious involvement than do European Americans (85% vs. 78% respectively) (Lugo et al., 2008; Roof & McKinney, 1987). African Americans not only report higher levels of religious involvement than European Americans in the form of service attendance, membership in religious organization, prayer, and Bible study, they are also more likely than European Americans to employ religious coping strategies, and to report satisfaction with the outcomes of religious coping efforts (Connell & Gibson, 1997; Ellison, 1993; Ellison & Taylor, 1996; Jang & Johnson, 2004; Kim et al., 2000; Levin et al., 1994). Particularly true of African Americans, religious beliefs provide a source of personal mastery and coping (Ellison, 1993; Mattis & Jagers, 2001). These researchers further demonstrated that religiosity is an important source of emotional and instrumental support through fellowship with others and a relationship with God or a "divine other" for African Americans.

Religious coping, when compared with other ways of coping, appears to be especially helpful in situations, such as bereavement or serious illness, where little direct control is possible. In a study conducted by Wallace and Bergeman (2002), spirituality and religiosity were used as a coping resource in a variety of ways, not just in response to crises, but also in dealing effectively with life's daily hassles. Particularly true of African Americans, religious beliefs provide a source of personal mastery and coping (Ellison, 1993; Mattis & Jagers, 2001). Spirituality and religiosity have been used interchangeably to describe concepts related to a higher power, things sacred and divine, or a heightened level of human consciousness (Utsey et al., 2007). However, religiousness and spirituality represent two distinct experiences. Religiosity typically involves some affiliation to an organized institution, systems of rituals, and doctrine that inform a person's beliefs about God or a higher power (Ellison et al., 2008). Spirituality, on the other hand is said to encompass the quest of larger existential questions: the meaning and purpose of life, mysteries of the universe, and transcendence (Tanyi, 2002). The broader construct of spirituality has been shown favor by researchers for its utility with nonreligious populations (Utsey et al., 2007).

As previously noted, African Americans endorse greater commitment to a spiritual system as do their European American counterparts. Spirituality is a prominent feature of African American culture (although not unique, tends to find greater expression in the population) and is said to permeate nearly every aspect of an individual's life. In the Africentric tradition, an Africentric worldview places ones relationship with the divine at the center of one's life thus all things emanate from this life source.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

Extant literature (see Chapter 2 for review) highlights several important findings which are foundational to this study: (1) young adults have increased risk of alcohol use and abuse, (2) African Americans exhibit increased propensity to modify negative affect through coping motivated substance use, (3) chronic stress and alcohol consumption have long-term, deleterious effects of on physical and psychological well-being, and (4) cultural variables (e.g., religion/spirituality, racial identity, social support) have been linked to increased psychological well-being and a reduction in high risk behaviors. However, additional research is needed to highlight the protective features of culture that buffer the damaging effects of psychological distress. Thus, this study will utilize a multidimensional assessment of culture to better understand its influence on coping behavior in African descended people.

Sample

Participants (*N*= 619) consisted of students enrolled at Georgia State University (38.5%, *n* = 239), the University of Georgia (28.9%, *n* = 179), Spelman College (21.4%, *n* = 129), and Savannah State University (11.3%, *n* = 70) (listed in Table 1). Seventeen percent (17.2%, *n* = 103) of participants were 1st year students, 22.7% (*n* = 137) 2nd year students, 27% (*n* = 163) were 3rd year students, 23.9% (*n* = 144) 4th year students, and 7.8% (n =47) were in their 5th year of study or greater. Seven participants (1.2%) failed to report their current academic standing. A total of sixteen participants were excluded from data analysis; twelve participants were excluded due to being outside the targeted

age range (18-35) and an additional 4 due to self-identifying as a race/ethnicity other than Black/African/African American. Nearly ninety percent (89.2%, *n* = 538) of participants racially identified as Black, 6.6% (*n* = 40) as Biracial (with one ethnic distinction as Black/African American), and 4% (*n* = 25) failed to report race. Eighty-three percent (*n* = 501) of the sample identified as female, 15% as male (*n* = 91), and 1.6% (*n* = 11) did not identify their sex. Participant ages ranged from 18 to 31(*M* = 20.49 years; *SD* = 2.4 years). Participants were also asked to self-report their ethnicity. Seventy-five percent (*n* = 454) of participants identified as African American, 5.4% (*n* = 31) identified as African (i.e., Ghanaian, Nigerian, Cameroonian, etc.), 5.4% (*n* = 31) identified as Caribbean (i.e., Haitian, Jamaican, Saint Lucian, etc.), 4.2% (*n* = 39) as Multiethnic, and 8.3% (*n* = 48) either failed to report ethnicity or identified as other (i.e., human race). Race and ethnicity can be seen listed in Table 2.

Immigrant status of participants (determined by family history in the U.S.) was included in this study (listed in Table 2) to better understand its influence on stress (e.g., acculturative) and coping processes in this sample. Sixteen percent (*n* = 100) were 1st generation, 1.3% (*n* = 8) as 2nd generation, and 5.6% (*n* = 34) identified as 3rd generation. Fourth generation African American participants comprised 63.7% (*n* = 385) of the sample. Nine percent (9.3%; *n* = 56) were born outside of the U.S., and 1.2% (*n* = 7) reported not knowing. An additional 2.3% (*n* =14) of participants failed to respond.

The majority (81.8%, *n* = 494) of participants were Christian, 6.1% (*n* = 37) Atheist or Agnostic, 2% (*n* = 12) were Muslim and 3.8% (*n* = 23) identified their religion as ‘other’. Lastly, participants were asked to identify parent history of drug or alcohol

abuse. More than six percent (6.3%; *n* = 38) report a history of maternal substance abuse compared to 15.7% (*n* = 95) who report paternal substance abuse histories.

Data Collection

Participants were recruited exclusively from colleges/universities in the South. Targeted participants were identified at the respective institutions as (1) currently enrolled students, (2) degree-seeking undergraduates, (3) who self-identify as Black/African/African-American in their enrollment status. A list of student names and email addresses for those meeting the above criteria were obtained through the Registrars Division or Institutional Research divisions at each institution. Participation in this study was solely Internet based. All Internet procedures and forms in this study followed the guidelines for protection of human participants as reviewed and approved by the University of Georgia, Georgia State University, Savannah State University, and Spelman College Institutional Review Boards.

Since the 1990's there has been a dramatic growth in Web-based research. Internet designs have numerous benefits including access to demographically and geographically diverse samples, potential for larger sample sizes, targeting of specialized samples, anonymity of responses, cost-effectiveness, time-effectiveness, and efficiency in data processes that can be readily imported into statistical databases. Internet samples have not been found to differ from traditional samples in psychological adjustment, and research findings such as personality or self-esteem have been consistent with traditional samples (Gosling, Vazire, Srivastava, & John, 2004). To reduce sampling bias all qualifying students were invited to participate via email (see Appendix A) informing them of the general nature of the study, limits of confidentiality, and potential risk and

benefits. Participants who had not yet completed the study were sent reminder emails (see Appendix B) in at least 7-day intervals. Due to the nature of Internet based research, confidentiality could not be assured, however, each participant email address was assigned a unique token ID to provide an additional level of anonymity.

Response rates by institution were unable to be determined. However, of the students identified by each institution who self-identified as African American, 1.6% completed the survey from Savannah State University, 2.3% at Georgia State University, 9% at Spelman College, and 9.4% at the University of Georgia. Fifty-four individuals across institutions replied that they did not qualify for participation in the study based on either race or age specification while an additional 35 individuals 'unsubscribed' their email addresses from the study. Further, it is not possible to determine what percentage of emails were successfully delivered or opened, as well as what percentage of participants were not eligible for the study based on either age or race specifications. Although the Web site was not designed to track the number of individuals who visited the survey, it tracked the number of persons who saved incomplete surveys. A total of 324 individuals progressed past the informed consent page but did not complete all subsequent questionnaire pages. These surveys were not included in any further data analysis. At the completion of the data collection, compiled data was exported into a Microsoft Excel file and converted to the appropriate data files (i.e., SPSS 19 and LISREL 8.80) for analysis.

Survey administration took place online utilizing LimeSurvey 1.91+ survey software. The survey website was accessible to participants from August10, 2011 to December 15, 2011. Participation in the study was completely voluntary and completion time was between 45-60 minutes, although survey participants were given the option to

save their responses and resume at a later point without penalty. To reduce the download time, the form was divided into 13 consecutive Web pages each comprised of a full questionnaire with the first page being the informed consent (see Appendix C). Upon completion of all questionnaires participants received an electronic debriefing form (see Appendix D), which included contact information for the primary investigator, the primary investigators Advisor, and the University of Georgia Institutional Review Board. Participants were compensated with $5 electronic Starbucks gift cards for their participation (of at least 75% completion). The Demographic Questionnaire was the first instrument administered to all participants. To control for ordering effects, the remaining questionnaires were randomized such that no two observed indicators of any latent variable followed in succession. To minimize incomplete questionnaires, the form was developed such that acknowledgement of each data field (i.e., answer to a question) was required with a "*no response*" option being provided. Discontinuing the survey was possible at any time by exiting the Internet browser.

Data Preparation and Screening

All data files were checked to verify proper coding and data entry. Data files were exported from LimeSurvey1.91+ to SPSS 19.0 and LISREL 8.80 to maintain the integrity of the data file. Additionally, central tendency measures were analyzed to determine the range of values and simple frequency counts to identify cases that did not fit (or are not possible) with other observations. Outliers were identified as those data points that possessed a wider range of scores than possible, of which there were none. Further, outliers were identified as data points with extreme values that lie outside the normal distribution when plotted. These values were then evaluated to assess the

causality and plausibility. Stevens (Stevens, 1999) notes, "Outliers should not necessarily be regarded as 'bad.' As a matter of fact, it has been argued that outliers can provide some of the most interesting cases for further study" (p. 18). Each outlier case was analyzed and included in the analysis, as they appear to represent valid data points.

Missing data. Missing values can lead to inaccurate results or a model that cannot be analyzed, particularly if a significant amount of data is missing (Kline, 2011). Most SEM computer programs automatically substitute missing values with imputations based on sophisticated estimates of the modeled relationships among variables (i.e., regression imputation), or make inferences for the missing data (i.e., mean substitution). To address issues related to missing data, a Multiple Imputation (MI) was performed using LISREL 8.80 for Windows (Jorëskog & Sorbom, 2005). The Markov Chain Monte Carlo (MCMC) method for imputing missing values in multivariate data sets was utilized due to its least biased imputation of missing data when compared to the Expected Maximization (EM) method (Schafer, 1999; Schafer, c1997).

Assumptions. For an SEM analysis to be successful, there are several requirements. First, each observed variable must correspond to a reliable and valid measurement. In the current study, all observed indicators were measured using instruments with established reliability and validity. Further, these measures performed as well in this study as in previous studies, thus not violating this assumption.

Second, the sample size must be sufficient. Researchers recommend "large" sample sizes of at least 200 participants for SEM, with a preferred ratio of 10 cases per each free parameter. Results may be suspect if there are less than five cases per parameter. The current study has 33 free parameters, which would necessitate a

recommended sample size of 330 participants. Further, an *a priori* power analysis indicated a required sample size of 375. This study had a large sample size (n = 603). For this reason, this assumption was not violated.

Third, issues of missing data should be addressed. According to Tate (1998), there are two methods to handle missing data; deleting cases with missing values (listwise or pairwise deletion) or replacing missing data (either by mean substitution or regression imputation). It was the preference of the researcher to replace missing data to maintain sufficient power and not decrease sample size. Thus, missing data was handled utilizing the Markov Chain Monte Carlo (MCMC) multiple imputation method.

Fourth, SEM assumes *univariate normality*; the distribution of scores for any one variable should approximate the normal curve. Although other common statistical tests (e.g., t-test, ANOVA) can be successfully conducted despite violations to normal assumptions, such violations can lead to inaccurate and even incalculable SEM analyses. Therefore, outliers, skewness, and kurtosis should be examined and addressed. Two statistics that describe distributional shape are skewness and kurtosis. *Skewness* refers to the symmetry of scores around the mean. Positive skew indicates a score distribution that is greater below the mean, and negative skew is when the majority of scores fall above the mean (Kline, 2011). *Kurtosis* refers to the density of observations compared to a normal distribution, with positive kurtosis indicating a higher peak and heavier tails, and negative kurtosis indicating a flatter peak and lighter tails. Kurtosis is especially problematic in SEM because it can impact significance tests and standard errors of parameter estimates (DeCarlo, 1997; Hopkins & Weeks, 1990). Researchers have provided varying guidelines for the maximum levels of skewness and kurtosis that can be

accepted. Skewness scores falling below -3.0 or above 3.0 are generally considered "extremely" skewed and necessitate transformation. However, studies have found that scores above 2.0 can also lead to inflated chi-square test statistics indicating poor model fit. Kurtosis scores are considered problematic if the absolute value is greater than 10.0 and "extreme" if above 20.0 (Curran, West, & Finch, 1996; Kline, 2011). Three observed indictors in the study demonstrated significant skew with values ranging from 2.088-3.628. Similarly, one variable demonstrated problematic kurtosis values (14.237). Based on these results, it seems that there is sufficient evidence that the assumption of multivariate normal data distribution may be violated. To account for these violations, measurement and structural models were fit using the Maximum Likelihood method due to its robustness against non-normative data sets (Boomsma & Hoogland, 2001).

Finally, bivariate multicollinearity was checked by investigating the correlation matrix of all observed indicator variables (Kline, 2011; Schumacker & Lomax, 2010). *Multicollinearity* should be avoided due to its ability to lead to failed SEM outputs. Multicollinearity occurs when the correlation among variables is extremely high (e.g., greater than .85), thereby indicating that the variables may be measuring the same construct. In the current data set, correlation coefficient estimates ranged from -.65 to .70. Based on the stated parameter, there were no identified issues of multicollinearity in the data set.

Instrumentation

Psychological Distress. The Social, Attitudinal, Familial, and Environmental Acculturative Stress –Revised scale (SAFE-R; Mena, Padilla, & Maldonado, 1987, see Appendix E) was designed to assess negative stressors experienced by Latina/o

immigrant and later-generation populations as they acculturate to the host culture. Joiner and Walker (Joiner Jr. & Walker, 2002) later established validity for use of the SAFE-R with African American students. Respondents were asked to rate the extent to which they perceived 24 items to be stressful on a 6-point Likert scale ranging from "*have not experienced*" (0) to "*extremely stressful*" (5). Possible total scores on the SAFE-R range from 0 to 120, with higher scores indicating greater acculturative stress. Cronbach's alpha for the SAFE-R has been found to be .89 in previous studies (Joiner Jr. & Walker, 2002; Mena et al., 1987). SAFE-R items measure perceived discrimination, perceived barriers to adaptation, negative reactions of family members to one's desire to adapt, feelings of isolation, and difficulties in communication. The 24-item SAFE-R scale has been shown to be reliable for African American students (Joiner Jr. & Walker, 2002). The SAFE-R demonstrated adequate reliability in this sample ($\alpha = .91$).

The Index of Race Related Stress – Brief form (IRRS-B; Utsey & Ponterotto, 1996, see Appendix F) was used to assess experiences of race-related stress in this sample. The IRRS-B is a 22-item inventory designed to assess race-related stress across 3 domains: Cultural Racism, Institutional Racism, and Individual Racism. The IRRS-B responses are assessed on a 5-point Likert-type scale composed of rating items with responses ranging from "*This has never happened to m*e" (0) to "*Event happened and I was extremely upset"* (4). Scores on the IRRS-B are indicative of both the quantity of negative race-related events as well as an appraisal of the level of distress experienced by the individual. Scores on the Cultural Racism subscale range from 0 to 40, and from 0 to 24 on both the Individual and Institutional Racism subscales. Higher scores on all subscales are indicative of experiences of racism and greater distress in the respective

subscale. Cronbach's alpha's for the IRRS-B have been previously reported: Cultural Racism (α = .78), Institutional Racism (α = .69) and Individual Racism (α = .78) (Utsey, 1999). Overall, the IRRS-B demonstrated adequate reliability in this sample: Cultural Racism (α = .85), Institutional Racism (α = .69) and Individual Racism (α = .82).

Ethnocultural variables. The Measurement of Acculturation Strategies for People of African Descent (MASPAD; Obasi & Leong, 2010, see Appendix G) was developed to address the challenges associated with the acculturative processes of African descended people. The MASPAD measures acculturative strategies along the dimensions of beliefs and behaviors and consists of 45 statements rated on a 6-point Likert scale ranging from "*strongly disagree*" (1) to "*strongly agree*" (6). The MASPAD can be scored bidimensionally (MASPAD-BD; Traditionalist/Assimilationist) and multidimensionally (MASPAD-MD; Traditionalist beliefs/behaviors and Assimilationist beliefs/behaviors). The MASPAD-BD assesses acculturation strategies along the dimensions of beliefs and behaviors and is designed to produce four global acculturative strategies reflecting a relative preference for maintaining one's own ethnocultural group (D1) or preference for being in contact with and participating in the practices of the society of another culture (D2). The four global acculturative strategies of the MASPAD are traditionalist (high D1 scores and low D2 scores), integrationist (high D1 and D2 scores), assimilationist (low D1 scores and high D2 scores), and marginalist (low D1 and D2 scores). Possible MASPAD bidimensional scores range from 22 to 132 on the Traditionalist subscale and 22 to 138 on the Assimilationist subscale. The MASPAD validation studies demonstrate bidimensional Cronbach's alpha values ranging from .75

to .87. For this sample, MASPAD bidimensional Traditionalist subscale reliability was .85 and Assimilationist subscale reliability was .67.

The Africentric worldview incorporates the values of people of African heritage (Neblett Jr. et al., 2010). Myers (1988) has noted that worldview is a variable experience, largely determined by culture, which informs how individuals perceive, think, feel and experience the world. Afrocentric worldview was assessed in this sample using the Worldview Analysis Scale (WAS; Obasi et al., 2009, see Appendix H) as an indicator of culture for its noted benefits in buffering the impact of stress on health and improving psychological adjustment in people of African descent (Myers & Brown, 1996). The WAS is a 45-item measures used to assess dimensions of worldview associated with African and European paradigms. Participant worldview is assessed along seven conceptual dimensions: spiritualism, communalism, spiritual immortality, materialistic universe, knowledge of self, tangible realism, and indigenous values. WAS item responses are recorded on a 6-point Likert scale "*strongly disagree*" (1) to "*strongly agree*" (6). WAS items are reverse scored such that higher scores are congruent with an African centered worldview and low scores are more congruent with a European-centered worldview (Obasi et al., 2009). Total WAS scores range from 45 to 270. Obasi and colleagues (2009) report adequate reliability coefficients for the WAS subscales (ranging from .71 to .87). The reliability estimate for this sample for the Total WAS is .71.

Religiousness/spirituality was assessed using the modified Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS; Masters et al., 2009, see Appendix I). The BMMRS is a 23-item measure that assess religiousness and spirituality across 7 domains: experiential comforting faith (ECF), negative religious

interaction (NRI), personal spirituality (PS), punishing God (PG), religious community support (RCS), private religious practices (PRP), and forgiveness (FR). June and colleagues (June, Segal, Coolidge, & Klebe, 2009) found Cronbach's alpha values to be adequate for the computed religiousness total score for African Americans (α = .95). The full-scale BMMRS demonstrated adequate reliability in the current sample (α = .91). BMMRS subscales produced the following reliabilities in this sample: ECF = .89, NRI = .76, PS = .65, PG = .62, RCS = .91, PRP = .74, and FR = .56.

Coping Strategies. The Alcohol Use Disorders Identification Test (AUDIT; Saunders, Aasland, Babor, Fuente, & Grant, 1993, see Appendix J) is a 10-item self-report measure to assess consumption and potential problem drinking behavior in adults. The AUDIT has shown to be more effective in identifying problem drinking behaviors in college students than DSM-IV criteria for alcohol use or dependence (Fleming, Barry, & Macdonald, 1991). AUDIT questions are scored on a Likert scale with varied anchors; questions 1-3 assess alcohol consumption (frequency and quantity); questions 4-8 assess tolerance and dependence, and questions 9 and 10 assess negative alcohol-related consequences. Higher scores on the AUDIT are indicative of high-risk drinking behaviors while scores ≥ 8 are indicative of problem drinking (Kokotailo, 2004). Researchers (Conley & O 'Hare, 2006; Kokotailo, 2004; Shields, Guttmannova, & Caruso, 2004) demonstrate adequate reliabilities for use of the AUDIT in college student samples (α= .79 - .82). The AUDIT produced similar reliability coefficients in this sample (α= .79).

The Africultural Coping Systems Inventory (ACSI; Utsey et al., 2000, see Appendix K) is a 30-item measure grounded in an African-centered conceptual framework of culture-specific coping strategies used by African Americans in everyday

stressful situations. Item responses are recorded on a 4-point Likert scale ranging from "*does not apply at all*" (0) to "*used a great deal"* (3). The ACSI produces four Africultural coping styles by summing item responses: cognitive and emotional debriefing (11 items), spiritual-centered coping (8 items), collective coping (8 items), and ritual centered coping (3 items). Constantine et al. (Constantine, Wilton, Gainor, & Lewis, 2002) demonstrated adequate Cronbach's alphas for the four subscales: Cognitive and Emotional debriefing (.85), Spiritual-Centered coping (.87), Collective Coping (.83), and Ritual-Centered Coping (.86). In this sample, the ACSI produced adequate reliability coefficients (.90).

The Drug History Questionnaire (DHQ; Sobell, Kwan, & Sobell, 1995, see Appendix L) was used to assess lifetime use (yes/no) and frequency of use (number of times) across classes of illicit substances. Additionally, participants who endorsed lifetime use of any substance were asked to report frequency of use in the last 6 months of each endorsed substance.

Demographic Questionnaire: An 18-item demographic survey was included in this study (see Appendix M). Questions regarding sex, age, race, and immigrant status were asked to determine if the characteristics of the sample were similar to the overall population, and to determine if the participant met criteria for participation. Factors associated with variables of interest to this study (e.g., ethnicity, religious affiliation, parental history of substance abuse) were also included.

Statistical Analysis

This study consisted of three primary steps: (a) testing the factor structure of the proposed latent variables, (b) examining the relationships between stress, coping, and

substance use behavior in the proposed model using SEM, (c) examining the moderating effects of culture on coping behavior in response to psychological distress. All SEM model analyses were conducted using LISREL 8.80 (Jorëskog & Sorbom, 2006). Models were estimated using the maximum likelihood (ML) method of estimation. The ML method of estimation has been found to be quite robust against violations of normality, as skewness and kurtosis can lead to overestimations of the chi-square statistic, which in turn can lead to higher model rejection rates (West, Finch, & Curran, 1995).

To estimate the mediation effects of coping behavior structural equation modeling (SEM) was used. The SEM model consists of two basic components: the *measurement model* and the *structural model* (Bollen, 1989, 1988). Testing the *measurement model* aids in determining if the chosen observed indicators (items) are appropriate for the model. The *structural model* is tested using path analysis to investigate relationships among the latent variables by identifying the direct and indirect effects.

Factor Structure

According to Jorëskog (1993), testing the structural model may be meaningless unless one has first established that the measurement model holds. For this reason, the chosen indicators should be examined to assess whether the items are feasible for the model. As a first step to testing the measuring model summary statistics and bivariate correlations were computed for all variables included in the coping model. Next, the researcher examined the relationship between the observed indicators and their latent constructs (three dimensions) to investigate correlations among dimensions. The results of the measurement model tests determine how well the indicators capture their specified constructs (Bollen, 1989, 1988; Hair, 1998). If the relations between variables are

statistically significant in the measurement model, this suggests that the measurement scale is likely valid. If the relations between variables are statistically significant in the structural equation model, then the evidence indicates that the full model is valid.

Measurement Model

In order to identify the model fit for the sample data, four fit indices, the chi – square (χ^2) statistic, the root mean square error of approximation (RMSEA), the comparative fit index (CFI), and the ratio of the chi-square statistic to the degree of freedom (normed chi-square; χ^2/df) were used. The chi-square statistic and RMSEA are fit indices for a measure of absolute fit, the CFI is a measure of incremental fit, and the normed chi-square statistic is a measure of parsimonious fit (Hu & Bentler, 1999). The chi-square refers to $\chi^2 = (n-1)F_{ml}$ in which "n is sample size, and F_{ml} is a fit function minimized by the maximum likelihood estimates" (Tate, 1998, p.189). According to Tate (1998), smaller values of the chi-square statistic determine better model fit. The RMSEA (Steiger, 1990) is a standardized measure of the lack of fit of the population data to the model. Values less than .05 generally indicate a close fit, with values of up to.08 being considered reasonable. The CFI is defined as the degree of "how much better the model fits compared to an independence model" (Tate, 1998, p. 91), and it is recommended in general. Values greater than .90 are regarded as an acceptable fit. Given the sensitivity of the chi-square statistic to the sample size (Kline, c1998), the value of the chi-square should be divided by degrees of freedom (χ^2/df) in order to confirm the fit of the model. Tate (1998) and Kline (1998) suggest that a value of less than 3 indicates a reasonable fit.

Structural Model

After testing the goodness of fit of the measurement model, the proposed structural model was tested to investigate relationships among the latent variables: stress, coping behavior, and substance use. Path analysis showed the relationships among the latent variables and the fit of the overall model was determined.

Hypotheses 1.1, 1.2 and 1.3 introduce coping behavior as a mediator of the relationship between stress and substance use behaviors. Consistent with recommendations of Baron and Kenny (1986b), MacKinnon and Dwyer (1993), and Holmbeck (1997), several conditions are required in order to demonstrate mediation. Mediation rests on a four-step set of criteria that includes three regression equations (Baron & Kenny, 1986b; Frazier, Tix, & Barron, 2004). First, stress should be related to the mediator variable; coping behavior (Path a, Figure 1) as well as the indicator variable: substance use (Path c, Figure 1). Second, the mediating variable (coping behavior) must be significantly related to substance use (Path b, Figure 1). Finally, the strength of the relationship between stress and substance use should decrease (Path c' < Path c, Figure 1) when the mediator variable is also included in the model (H1.4). The preferred method for investigating mediation effects is Structural Equation Modeling (SEM) (Baron & Kenny, 1986b; Frazier et al., 2004).

Moderated Mediation

Cultural variables were introduced in hypotheses 2.1, 2.2, 2.3 as moderator variables of the relationship between stressors and coping behavior and in hypotheses 2.4, 2.5, and 2.6 as moderators of the relationship between coping behavior and substance use. These hypotheses are particularly interested in exploring the conditional indirect

effects of culture on the proposed mediation model. To analyze these relationships, a moderated mediation model was used. Moderated mediator analyses were conducted in the manner consistent with recommendations of Preacher, Rucker and Hays (2007). The moderated mediation model was analyzed using an SPSS macro (Preacher et al., 2007) designed specifically for such analyses. This SPSS macro estimates the conditional indirect effect of the causal independent variable (stress) on the outcome variable (substance use behavior) through a proposed mediator (coping strategies) variable, conditional on a moderator (cultural variables) variable of the path from the independent variable to mediator (see Figure 2). The SPSS macro calculates the Sobel test for the conditional indirect effect, bootstrap confidence intervals, and regions of significance for the conditional indirect effect at value(s) of the moderator using the Johnson-Neyman (J-N) technique.

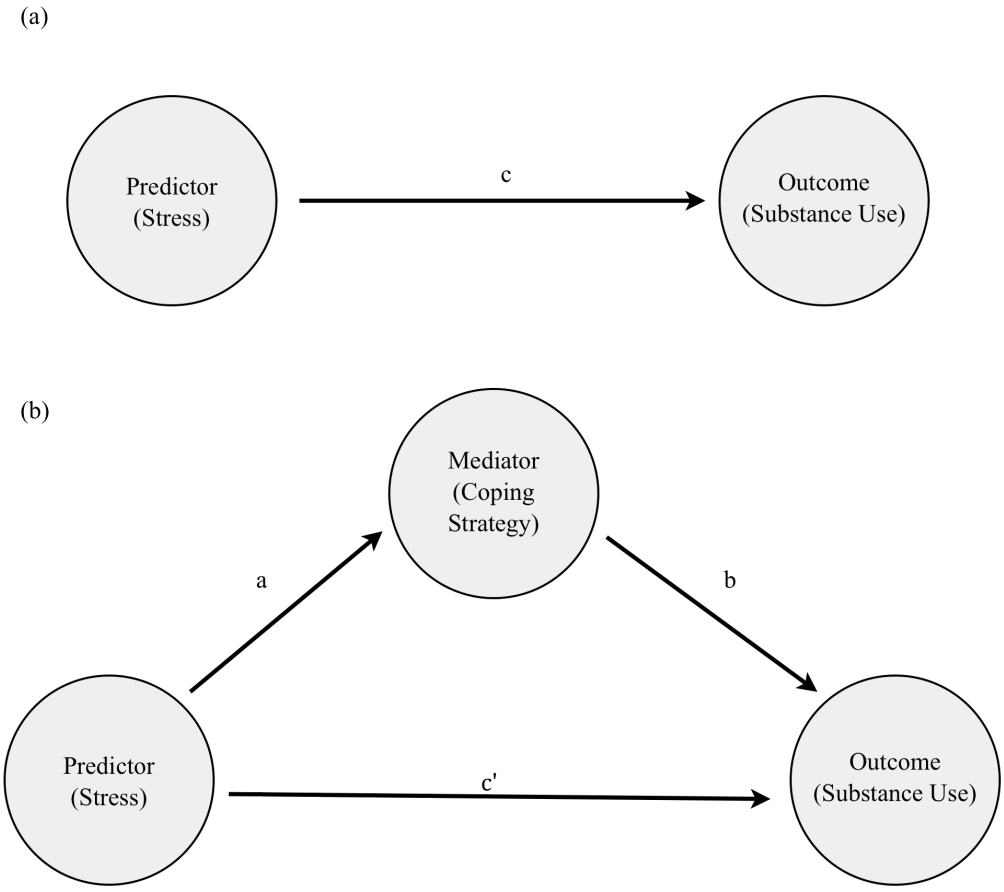

Figure 1. Mediation Model: Coping Strategies Mediating the Relationship between Stress and Substance Use.

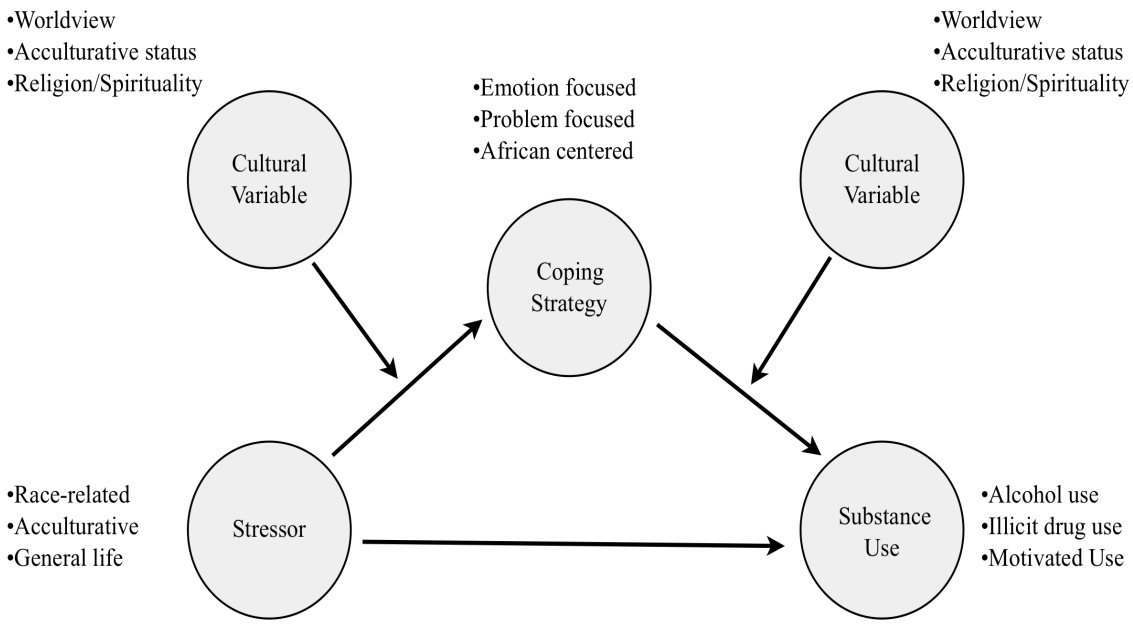

Figure 2. Proposed Moderated Mediation Model.

Table 1. Participant Institutional Affiliation and Academic Standing

	N	%	Cumulative %
Institution			
Georgia State University	239	38.6	
University of Georgia	179	28.9	67.5
Spelman College	129	20.8	88.3
Savannah State University	70	11.3	99.6
Missing	2	0.3	100
Total	617	100	
Academic Standing			
1st year	103	17.1	
2nd year	137	22.7	39.8
3rd year	163	27.0	66.8
4th year	144	23.9	90.7
5th year or more	47	7.8	98.5
College/University Graduate	2	0.3	98.8
Missing	7	1.2	100
Total	603	100	

Table 2. Demographic Characteristics of Participants

	N	%	Cumulative %
Race			
Black	538	89.2	
Biracial	40	6.6	95.8
Missing	25	4.1	100
Total	603	100	
Ethnicity			
African American	454	75.3	
African	31	5.1	80.4
Caribbean	31	5.1	85.5
Multiethnic	39	6.5	92
Missing	48	8	100
Total	603	100	
Sex			
Male	91	15.1	
Female	501	83.1	98.2
Missing	11	1.8	100
Total	603	100	
Immigrant Status			
1st generation	100	16.5	
2nd generation	8	1.3	17.8
3rd generation	34	5.6	23.4
4th generation	385	63.8	87.2
Immigrant	56	9.3	96.5
Unknown	7	1.2	97.7
Missing	14	2.3	100
Religious Background			
Atheist/Agnostic	37	6.1	
Christian	493	81.8	87.9
Muslim	12	2.0	89.9
Other	23	3.8	93.7
Missing	38	6.3	100
Total	603	100	

CHAPTER 4

RESULTS

The purpose of this study was to model 1) the mediating effects of coping behavior on substance use and 2) the moderating effects of culture on the relationship between stress and coping behaviors in a sample of people of African descent ages 18-35. This chapter describes the results of the quantitative analytic procedures explained in Chapter 3. The contents of this chapter include primary (structural equation modeling) and secondary analysis (moderated mediation).

Data Analysis

Descriptive Statistics

Means, standard deviations and Pearson correlation coefficients among the indicator variables are presented in Table 3. It is important to note demographic data relevant to several variables of interested to this study, namely those that provide greater understanding of alcohol use behavior and an understanding of the relationships to culture represented in the sample. Overall alcohol use behavior in the sample was low (AUDIT total; $M = 3.89$). Additionally, a small percentage (13.3%, n = 80) of the sample exhibited problem or hazardous drinking behavior with AUDIT score ≥ 8. Further, worldview was examined in this study using the Worldview Analysis Scale (Obasi, Flores, & James-Myers, 2009). It is important to note that the sample demonstrated greater subscription to a worldview rooted in spiritualism ($M = 237.04$, SD = 32.162) versus one rooted in materialism; suggesting congruence with an Africentric paradigm for understanding the lived experiences of people of African descent. Similarly,

acculturative strategy was determined utilizing an a priori mean split to generate four possible acculturative strategies for the sample. The majority of the sample (*n* = 377; 62.5%) responded with a traditionalist strategy, which reflects preference for maintaining one's own heritage while demonstrating little to no interest in the heritage of other ethnocultural groups. An additional 10 percent (*n* = 57) endorsed an integrationist strategy, 8 percent (n = 47) as assimilationists, and finally twenty percent (*n* = 121) with a marginalist strategy.

Primary Analyses

Structural equation modeling (SEM) was utilized in Primary Aim I to examine the interactions among stress, coping behavior, and substance use variables. Structural equation models depict the hypothesized relationships among variables, which are then tested against data (Schumacker & Lomax, 2010). SEM has many advantages when compared to other analytic strategies. SEM is often based on strong theoretical assumptions and previous empirical findings due to proposed models of anticipated relationships amongst variables. Second, while other statistical methods are limited in the number of variables analyzed, SEM can analyze more sophisticated variable interactions and multiple dependent variables simultaneously. Further, SEM offers the opportunity to conceptualize the same variable as both an outcome and predictor variable. In addition to examining *observed* (i.e., directly measured) variables, SEM affords researchers the opportunity to assess *latent* variables. Latent variables are theoretical constructs typically measured by two or more observed variables (indicators). Finally, measurement errors are accounted for in the SEM analysis (Schumacker & Lomax, 2010).

Measurement Model

The measurement model of SEM depicts the pattern of observed variables for those latent constructs in the hypothesized model (Schreiber, Stage, King, Nora, & Barlow, 2006). Because preliminary results indicated that the data did not approximate a normal distribution for some variables, the robust maximum likelihood (ML) method of estimation was used for testing fit of the hypothesized model and the modified model. The hypothesized model produced poor fit indices (see Figure 3), suggesting that the proposed model may not fit as theorized. Despite poor model fit, analyses indicate significant factor loadings at $p < .05$ for 15 of 16 observed indicators (see Figure 4). Subsequently, the construct validity of the 15 subscales as indicators of the three latent variables appears to be at an acceptable level. However, DUHQ3 does not appear to be an indicator of substance use behavior in this sample.

Researchers (Hu & Bentler, 1999; Steiger, 1990) recommend reporting three fit indexes; the normed chi-square, the comparative fit index (CFI), and the root mean square error of approximation (RMSEA). The normed chi-square (χ^2/df) is a measure of parsimonious fit. The normed chi-square measure for the proposed model was 5.57 (χ^2/df = 562.34/101). According to Hu and Bentler (1999), normed chi-square values between 2 and 5 are indicators of an acceptable model fit. Despite recommendations to report the normed chi-square statistic, it is not recommended for use with samples sizes greater than 200 due to the sensitivity of the chi-square statistic to sample size (Kenny, 2011). Otherwise stated, the larger the sample the greater the likelihood of having a significant chi-square statistic thus rejecting the null hypothesis. Similarly, the comparative fit index (CFI) is often reported and was .84 for the proposed model. Recommended CFI values

are greater than .90 for acceptable model fit. Because only one model is being tested in this study interpretation of the CFI may not prove beneficial. Finally, the root mean square error of approximation (RMSEA) for a measure of absolute fit was .09. Good RMSEA values for model fit are less than .05 with acceptable fit indices being between .05 and .08 (Browne & Cudeck, 1992).

Model modification. The revised model is based on both theoretical and statistical considerations. LISREL 8.80 output reports modification indexes to aid the researcher in adjusting the model to improve model fit. The modification indexes provided were not theoretically sound thus attempts to utilize the recommended modification indexes to improve model fit would have proven unsuccessful. However, after exploring the correlations and t-values of the observed indicators, scales rooted in a Eurocentric or Western paradigm correlated poorly with scales rooted in an Afrocentric paradigm (see Table 3). It has been noted that poor correlations between observed indicators can adversely affect model fit. The revised model then had stress and coping indicators rooted solely in an Afrocentric paradigm entered into the model. Additionally, substance use behavior in the sample was measured as a function of alcohol use, cannabis use in the past 6 months, and coping motivated substance use behavior. Lastly, observed indicators with t ($df > 100$) < 1.96 were removed from the model.

The revised measurement model resulted in improved model fit (RMSEA = .06; see Table 4). The CFI for the modified model was 0.96 and the normed chi-square was 3.28 (χ^2/df = 105.01/32) representing significant improvement over the proposed model. Table 4 presents the fit statistics for the proposed and revised measurement models (including the models' chi-square values, the normed chi-square, CFI, and the RMSEA).

Structural Model

After obtaining an acceptable level of fit with the measurement model, the results of the structural equation modeling analysis of the structural model referred to no offending estimates in all factor loadings and an acceptable model fit of the structural model to the data. The structural model displays the interrelations among the latent constructs and observed variables in the proposed model as a succession of structural equations. Like the modified measurement model, the structural model produced adequate goodness-of-fit values (RMSEA = .06; CFI = .96; $\chi^2/df = 3.28$) (see Table 4). Given the acceptable fit of the model, direct and indirect effects were investigated according to the study's hypotheses. All path coefficients for the final model are provided in Figure 5.

As shown in Figure 5 several direct effects were hypothesized. Relationships between stress and coping behavior (H1.1; ß = 0.28, t = 5.44) and between stress and substance use behavior (H1.3; ß = 0.14; t = 2.58) were statistically significant at a level of $p < .001$. Findings suggest that individuals who report experiencing race related and acculturative stress displayed greater reliance on African centered coping behavior with particular regard for collective, spiritual, and cognitive coping strategies. This provides partial support for Hypothesis 1.1, which stated that there would be a positive relationship between stress and coping behavior that are used to counter the effects of experienced stressors.

Similarly, individuals displayed reliance on substance use to cope with racial and acculturative stressors (ß = 0.14; t = 2.58, $p < .001$). This finding supports Hypothesis 1.3 in that stress was a significant predictor of alcohol and cannabis use in the

sample. Additionally, participants were more likely to engage in substance use behavior to alleviate negative affect associated with experienced stress.

In the revised structural model, coping behavior rooted in a Eurocentric paradigm were removed thus changing the predicted relationships between coping behavior and substance use. Hypothesis 1.2 was not supported in that the relationship between coping strategies and substance use was not significant (ß = -.04; t = -0.88, p <.001). More specifically, subscribing to African centered coping behavior did not have an impact on one's substance use in the overall model or for students enrolled in HBCUs.

Additionally, the same model was employed to explore between group differences with regard to university/institution type (i.e., Predominantly White Institutions (PWIs) and Historically Black Colleges and Universities (HBCUs); see Table 4). Findings confirmed good model fit for students at PWIs (N = 405; RMSEA = 0.06; CFI = 0.97; χ^2/df = 2.46; see Figure 6). Interestingly, race related and acculturative stress was a significant predictor of substance use (ß = 0.16; t = 2.52; p < 0.01) and coping behavior (ß = 0.28; t = 4.32; p < 0.01). Further, findings suggest the best model fit (RMSEA = 0.05; CFI = 0.97; χ^2/df = 1.52) for students enrolled in HBCUs (N = 199; see Figure 7), however, race related and acculturative stressors did not prove to be a significant predictor of substance use (ß = 0.08; t = 0.90; p = .03) for these students.

Lastly, it was hypothesized that coping strategies would mediate the relationship between stress and substance use (H1.4) such that a reduction in the relationship between stress and substance use would be evidenced when the mediator (coping strategies) was added to the equation. Because one of the three previous relationships was not significant (Baron & Kenny, 1986a) there is insufficient evidence to suggest that African centered coping behavior mediates the relationship between stress and substance use.

Secondary Analyses

The secondary aim of this study was to investigate the role culture plays in moderating the relationship between stresses and coping behavior. The moderated mediation effect that was based on latent variables was confirmed using manifest variables with the SPSS macro for moderated mediation by Preacher and colleagues (2007).

Hypothesis two (H2) of this study purported that culture would moderate the proposed mediation model. More specifically it was hypothesized that acculturative beliefs and behaviors would moderate the effects of stress on coping behavior (H2.1). It was further hypothesized that acculturative beliefs and behavior would moderate the effects coping behavior have on substance use (H2.4), primarily alcohol use and marijuana use. Acculturative beliefs and behaviors were not found to differentially affect ones coping behavior or substance use in response to race-related, acculturative or general life stress.

Similarly, worldview orientation was proposed to moderate the effects stress have on coping behavior (H2.2) and alcohol use (H2.5). Particularly, a worldview orientation rooted in spiritualism (as is consistent with a traditional African belief system) will

moderate the relationship between culturally congruent stressors (acculturative and race related stress) and coping strategies consistent with a Western orientation and coping strategies consistent with an Africentric orientation. These hypotheses were not supported in the current study.

A third indicator of culture, commitment to a religious/spiritual system, was entered into the model to assess its influence on coping behavior and substance use. It was hypothesized that commitment to a spiritual/ religious belief system would moderate the relationship between stress and coping behavior (H2.3) as well as stress and substance use (H2.6). Overall, results indicate that one's commitment to religious/spiritual systems as a function of experiential comforting faith, personal spirituality, and belief in a punishing god moderate the relationship between stress and substance use through African centered coping strategies (see Figure 8). The moderated mediation hypothesis was tested by a series of regression analyses. First, African centered cognitive coping strategies (Me) were predicted by experiences of cultural racism (IV; $\beta = .106$, $p < 0.05$). Additionally, alcohol use (DV) was predicted by cultural racism ($\beta = .038$, $p < 0.05$), African centered cognitive coping strategies ($\beta = .079$, $p < 0.05$), and the cultural racism * experiential comforting faith (Mo) interaction (Mo*Me; $\beta = .0044$, $p < 0.05$). The significant interaction effect supported the assumption of moderated mediation (Figure 8). Given the significant interaction term, significance tests were conducted on the hypothesis that the conditional indirect effect equals zero at specific values ($M \pm 1$SDs) of the moderator. Experiential comforting faith moderated the relationship of cultural racism on alcohol use through African centered cognitive coping strategies at the mean, but not when experiential comfort was low (+1 SD) and high (−1 SD; see Table 6). The region of

significance had its lower bound at experiential comforting faith = 2.05 (z-value; p <0.05) and its upper bound at 2.11 (z-value; p <0.05). The lower bound describes the lowest z-value of the moderator, for which the indirect effect is significant.

Similarly, personal spirituality (Mo) was found to significantly moderate the relationship between cultural racism (Me) and alcohol use through African centered cognitive coping strategies (Mo*Me; β = .0185, p <0.05). As seen in experiential comforting faith, the indirect effect for personal spirituality was significant only at the mean (see Table 6). The region of significance for personal spirituality as a moderator had its lower bound at 1.93 (z-value; p < 0.05) and its upper bound at 1.99 (z-value; p < 0.05).

Lastly, belief in a punishing god (Mo) significantly moderated the aforementioned relationships between stress and alcohol use (Figure 8). More specifically, the significant negative interaction between cognitive coping strategies and belief in a punishing god (Mo*Me; β = -.0261, p <0.05) in the model for alcohol use implies that as the indirect effect of cultural racism on alcohol use through African centered cognitive coping strategies increases, belief in a punishing god decreases. The lower and upper bounds of the region of significance for belief in a punishing god were 1.98 and 1.97 (z-values, p < 0.05) respectively. Table 7 presents the estimates, standard errors, z statistics, and significance value of the conditional indirect effects for cultural racism, institutional racism and individual racism across low (-1 SD) and high (+1 SD) levels of religiousness/spirituality.

In addition to religious/ spiritual beliefs moderating the relationship between cultural racism on alcohol use, similar effects were evidenced in models of the effects of institutional racism (Figure 9) and individual racism (Figure 10) on alcohol use.

Tertiary Analyses

Follow-up analyses were conducted to further explore the significant relationships between stress and coping behaviors that emerged in the secondary analyses; with focused attention on the ability of culture to moderate this relationship. Multivariate multiple regression (MMR) analyses were used to test whether a significant relationship existed between the study's predictor variable, stress (IRRS-CR, IRRS-INS, IRRS-IND, and SAFETotal) and a set of dependent variables; African centered coping strategies. The predictor variables were acculturative stress (SAFETotal) and race-related stress (IRRS-CR, IRRS-INS, and IRRS-IND) and twelve interaction terms between the acculturative stress and race related stress subscales. The dependent variable was compromised of 4 subscales from the Africultural Coping Systems Inventory (ACSI-COL, ACSI- COG, ACSI-SPI, and ACSI-RIT).

Findings demonstrate that worldview significantly moderated the relationship of acculturative stress ($\beta = -.077$, $p = .05$) and institutional racism ($\beta = -.090$, $p = .02$) to African-centered collective coping. The acculturative stress to collective coping relationship is strongest at a worldview orientation rooted in spiritualism and weakest at levels reflecting a worldview orientation rooted in materialism. Similarly, the relationship between institutional racism to collective coping is strongest in the case of high worldview orientation rooted in spiritualism. Worldview also mediated the relationship of institutional racism to African-centered spiritual coping behavior ($\beta = -$

.071, p = .05). Again, this relationship is strongest when worldview orientation is high indicative of a spiritual centered worldview congruent with an Africentric paradigm. Consequently, it would be expected that a relationship would emerge between spiritual centered coping and a worldview rooted in spiritualism.

Further, traditionalist acculturative strategies significantly moderated the relationship of acculturative stress and African-centered ritual coping (β = .127, p = .002). More specifically, the relationship between acculturative stress and ritual centered coping is strongest where subscription to a traditionalist acculturative strategy is high. Given that the majority (62.5%) of the sample endorsed a traditionalist acculturative strategy, this finding would be consistent with anticipated coping behavior.

In sum, these findings suggest that cultural does in fact impact the relationship between stress and coping behaviors in African Americans, in the absence of substance use behavior.

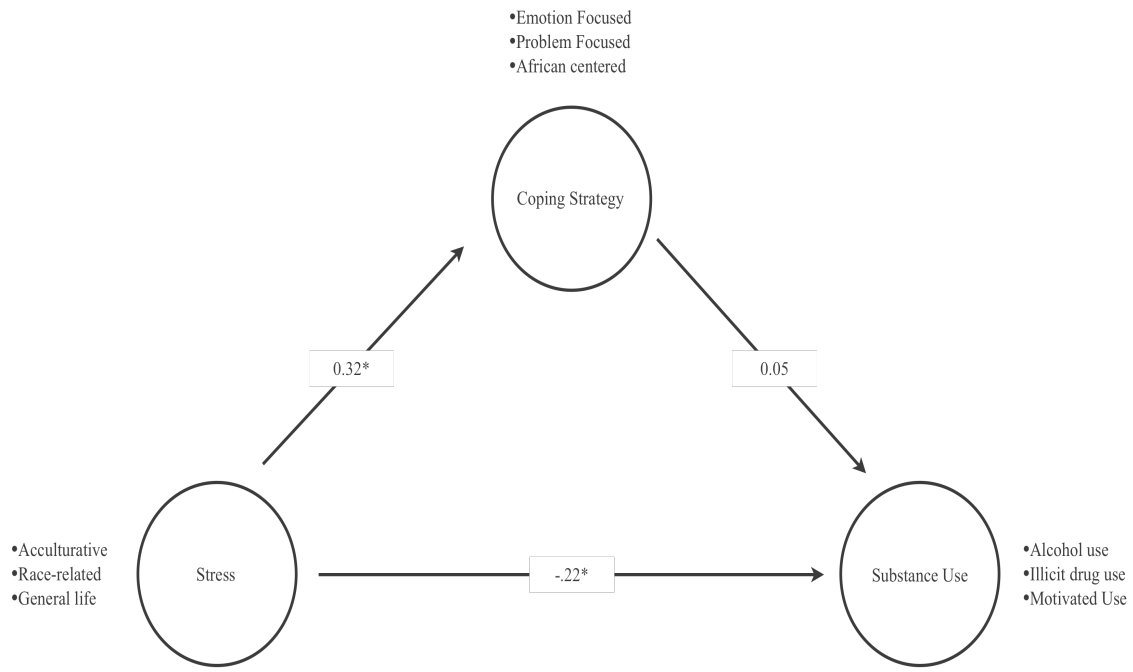

Figure 3. Path Coefficients for the Proposed Mediation Model. *Note*. RMSEA = .09; CFI = 0.96; normed chi-square = 3.28; * $p < 0.05$

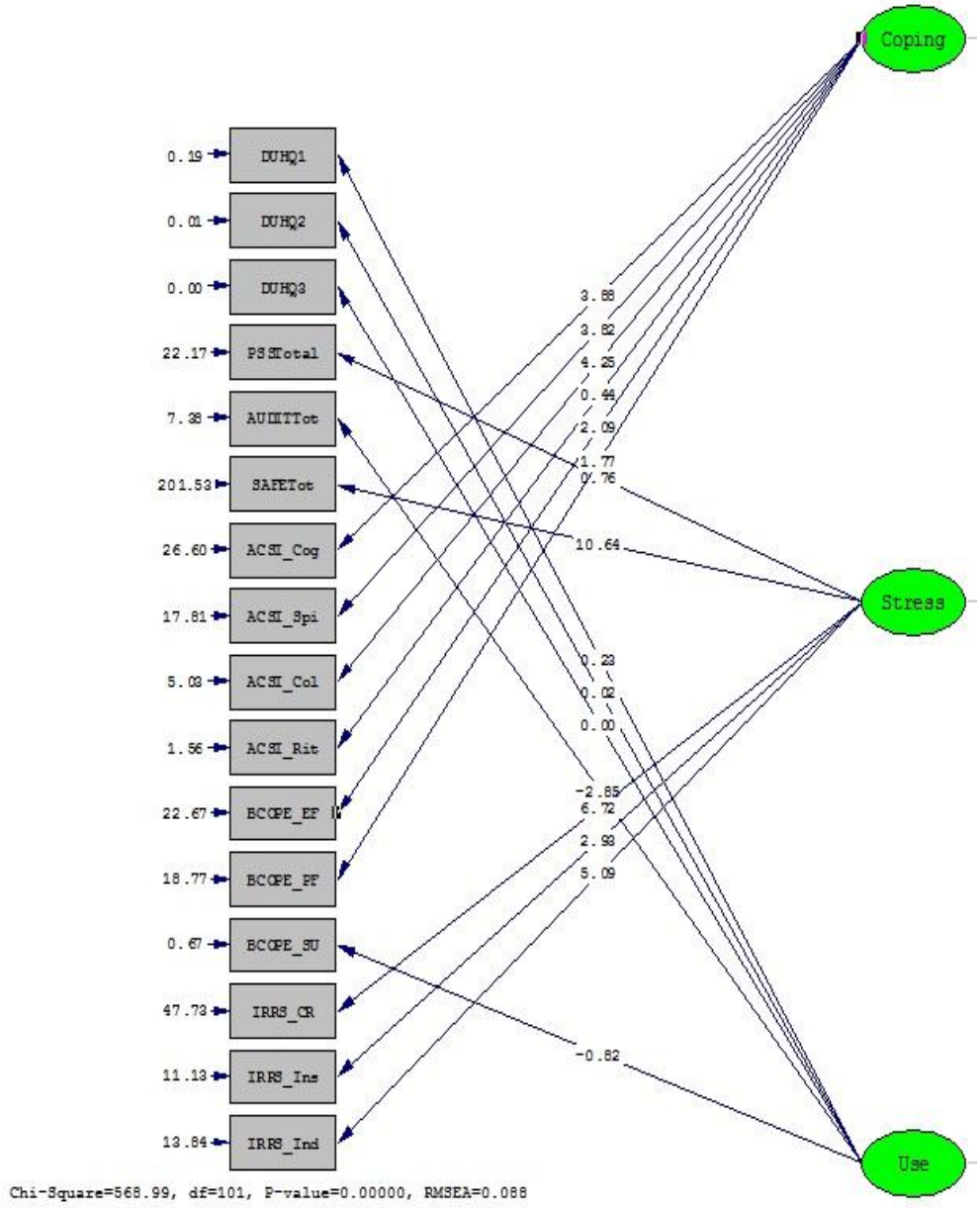

Figure 4. Proposed Latent Variable Factor Loadings. *Note.* IRRS_CR = Index of Race Related Stress -Cultural Racism; IRRS_Ind = Individual Racism; IRRS_Ins = Institutional Racism; SAFETot= Social, Attitudinal, Familial, and Environmental acculturative stress total scale score; PSSTotal= Perceived Stress Scale total; BCOPE_EF = Brief Cope Emotion Focused total score; BCOPE_PF = Problem Focused total score; BCOPE_SU= Brief Cope Substance Use total score; ACSI_Col = Africultural Coping Systems Inventory Collective Coping total scale score; ACSI_Spi = Spiritual Centered Coping total scale score; ACSI_Cog = Cognitive Coping total scale score; ACSI_Rit = Ritual Centered Coping total scale score; AUDIT= Alcohol Use Disorders Identification Test; DHQ1 - Drug Use History Questionnaire- Hashish use; DHQ2 = Stimulant Use ; DHQ3 = Methamphetamine use

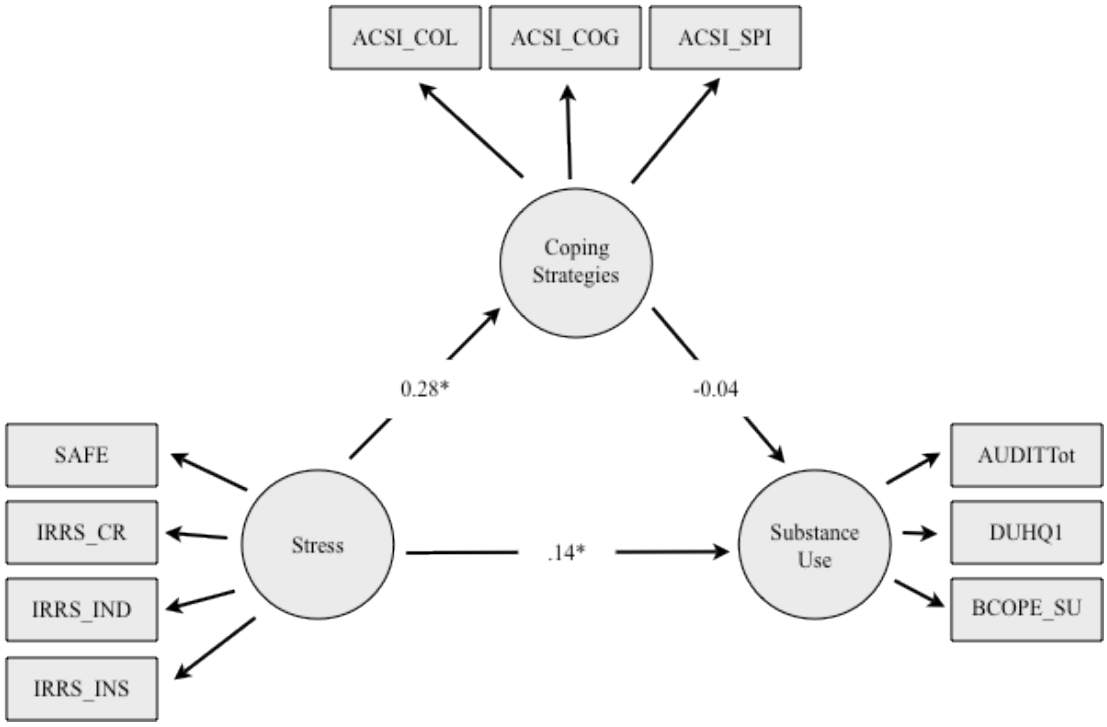

Figure 5. Full Modified Structural Model with Path Coefficients. *Note*. Fit indices: RMSEA = .06; CFI = 0.84; normed chi-square = 5.57; * $p < 0.01$

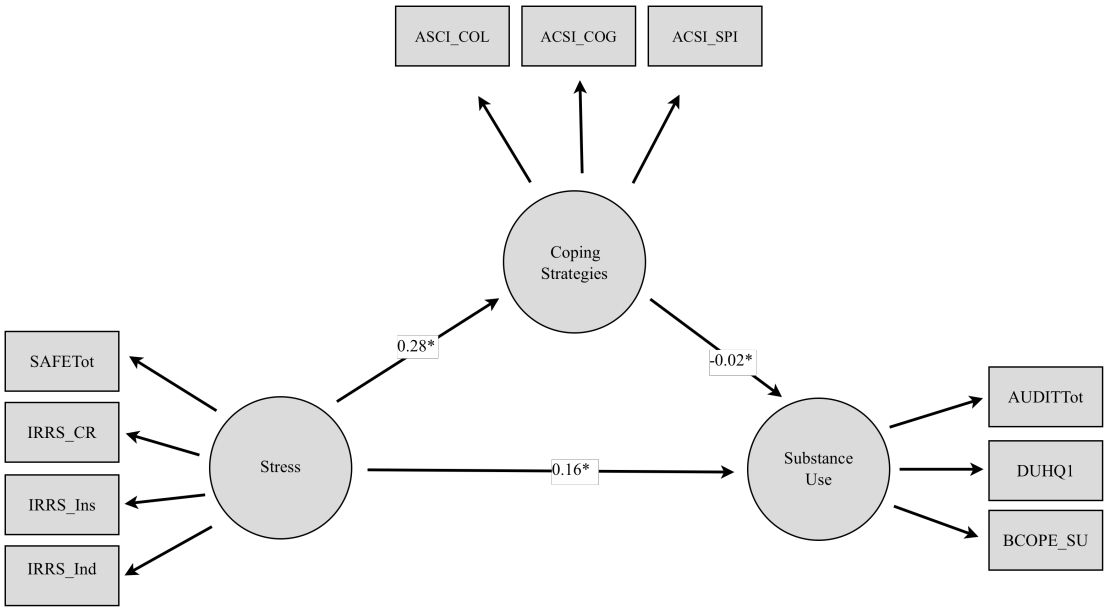

Figure 6. Modified Structural Model with Path Coefficients for Students at PWIs. *Note*. Fit indices: RMSEA = .06; CFI = 0.97; normed chi-square = 2.46; * $p < 0.01$

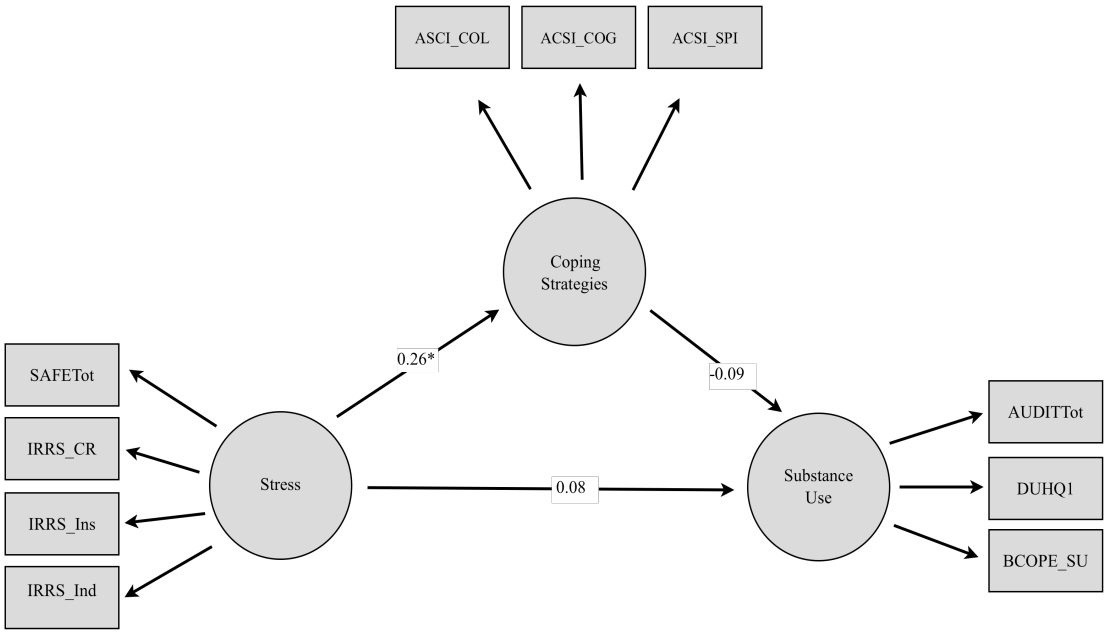

Figure 7. Modified Structural Model with Path Coefficients for Students at HBCUs.
Note. Fit indices: RMSEA = .05; CFI = 0.97; normed chi-square = 1.52; * $p < 0.05$

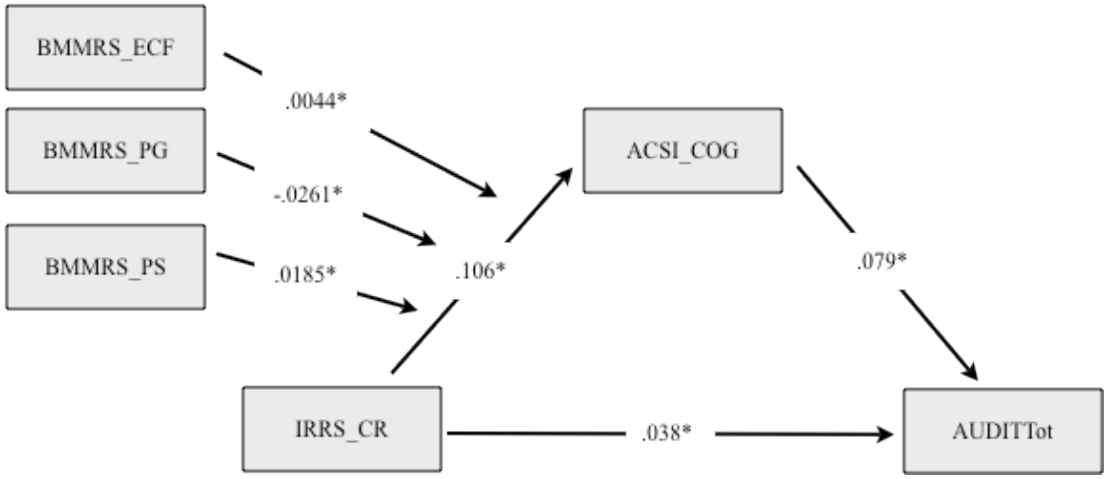

Figure 8. Moderated Mediation Effects of Religious/Spiritual Coping on Cultural Racism and Alcohol Use. *Note*. IRRS_CR = Index of Race Related Stress -Cultural Racism; ACSI_COG = Cognitive Coping total scale score; AUDITTot= Alcohol Use Disorders Identification Test total scale score; BMMRS_ECF = Brief Multidimensional Measure of Religiousness and Spirituality experiential comforting faith; BMMRS_PG = Brief Multidimensional Measure of Religiousness and Spirituality punishing god; BMMRS_PS = Brief Multidimensional Measure of Religiousness and Spirituality personal spirituality. ** $p < 0.05$*

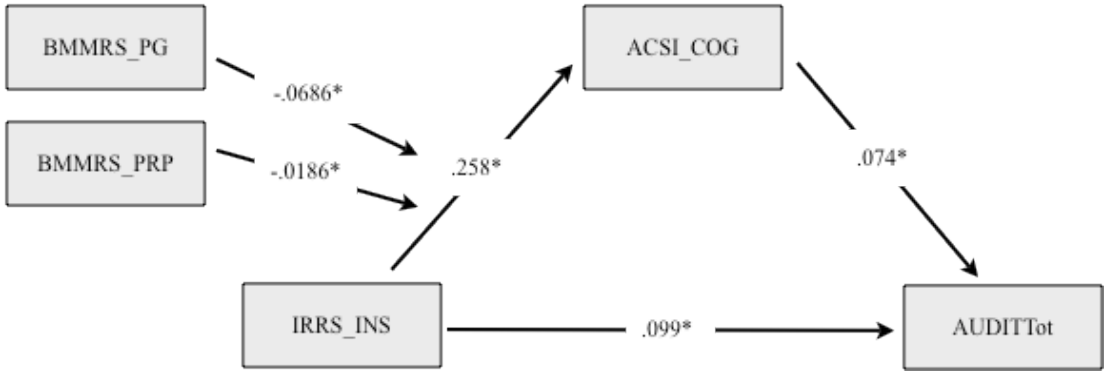

Figure 9. Moderated Mediation Effects of Religious/Spiritual Coping on Institutional Racism and Alcohol Use. *Note*. IRRS_INS = Index of Race Related Stress –Institutional Racism; ACSI_COG = Cognitive Coping total scale score; AUDITTot= Alcohol Use Disorders Identification Test total scale score; BMMRS_PG = Brief Multidimensional Measure of Religiousness and Spirituality punishing god; BMMRS_PRP = Brief Multidimensional Measure of Religiousness and Spirituality private religious practices. * $p < 0.05$

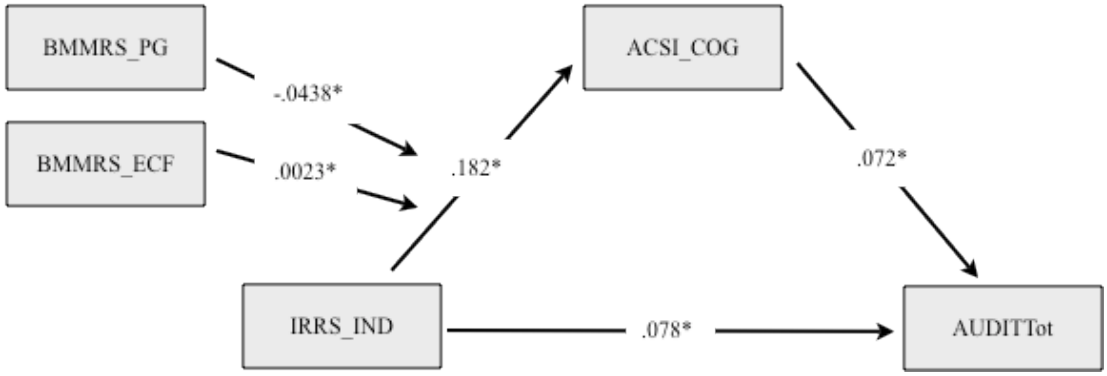

Figure 10. Moderated Mediation Effects of Religious/Spiritual Coping on Individual Racism and Alcohol Use. *Note*. IRRS_IND = Index of Race Related Stress –Individual Racism; ACSI_COG = Cognitive Coping total scale score; AUDITTot= Alcohol Use Disorders Identification Test total scale score; BMMRS_PG = Brief Multidimensional Measure of Religiousness and Spirituality punishing god; BMMRS_ECF = Brief Multidimensional Measure of Religiousness and Spirituality experiential comforting faith. * $p < 0.05$

Table 3. Summary of Intercorrelations, Means, and Standard Deviations for Scores on Indicator Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. PSSTotal	-													
2. SAFETot	.135**	-												
3. IRRS_CR	.136**	.401**	-											
4. IRRS_Ins	.090*	.454**	.416**	-										
5. IRRS_Ind	.086*	.454**	.594**	.535**	-									
6. AUDITTot	.011	.172**	.093*	.133**	.146**	-								
7. DUHQ1	-.076	-.081*	-.052	-.046	-.086*	-.340**	-							
8. DUHQ1b	-.082	-.087	.036	-.012	-.062	.199**	.[a]	-						
9. DUHQ2	.018	-.112**	-.112**	-.073	-.102*	-.063	.111**	-.110	-					
10. DUHQ3	-.013	-.107**	-.065	-.007	-.070	-.011	.049	.050	-.004	-				
11. WASTotal	.101*	.132**	.315**	.065	.220**	-.047	-.020	-.062	-.066	-.016	-			
12. MASPADTr	.126**	.187**	.318**	.201**	.232**	-.101*	.035	-.037	-.040	-.030	.502**	-		
13. MASPADAs	.030	.028	-.245**	.002	-.087*	-.022	.079	-.019	.067	.019	-.254**	-.273**	-	
14. ACSI_Cog	.204**	.249**	.158**	.178**	.177**	.141**	.020	.095	-.064	.027	.091*	.150**	.074	-
15. ACSI_Spi	.112**	.082*	.147**	.115**	.137**	-.078	.204**	.036	-.001	.024	.444**	.424**	-.042	.378**
16. ACSI_Col	.151**	.141**	.194**	.182**	.189**	.024	.100*	.045	-.054	-.010	.253**	.341**	-.053	.523**
17. ACSI_Rit	-.065	.203**	.099*	.262**	.116**	.167**	.007	.121	-.105**	.015	.026	.188**	.009	.229**
18. BMMRS_ECF	-.070	-.027	-.131**	-.033	-.145**	.122**	-.164**	.019	-.056	.043	-.628**	-.458**	.029	-.119**
19. BMMRS_NRI	.047	-.178**	-.065	-.182**	-.161**	-.105**	.006	-.037	-.004	.030	-.005	-.058	-.052	-.164**
20. BMMRS_PS	-.088*	.009	-.103*	-.039	-.095*	.122**	-.094*	.037	.001	.027	-.543**	-.437**	.106**	-.131**
21. BMMRS_PG	-.044	-.337**	-.063	-.209**	-.104*	-.156**	.001	-.040	.053	.004	-.022	-.060	-.066	-.185**
22. BMMRS_RCS	-.053	.089*	-.072	.031	-.009	.128**	-.183**	.139*	-.068	-.001	-.367**	-.285**	.054	-.022
23. BMMRS_PRP	.008	-.009	-.040	-.098*	-.070	.071	-.204**	.073	-.066	.028	-.370**	-.324**	-.005	-.104*
24. BMMRS_FOR	-.014	.195**	-.068	.068	-.017	.108**	-.060	.038	-.116**	.005	-.364**	-.285**	.063	-.006
25. BCOPE_EF	.277**	.311**	.117**	.184**	.187**	.196**	-.044	.084	-.140**	.005	.140**	.061	-.011	.405**
26. BCOPE_PF	.313**	.008	.088*	.061	.106**	.015	-.054	.048	-.015	.009	.198**	.106**	-.092*	.177**
27. BCOPE_SU	-.010	.139**	.039	.055	.084*	.516**	-.325**	.486**	-.164**	-.017	-.036	-.083*	-.018	.144**

**. Correlation is significant at the 0.01 level (2-tailed).*. Correlation is significant at the 0.05 level (2-tailed).a. Cannot be computed because at least one of the variables is constant.

Variable	15	16	17	18	19	20	21	22	23	24	25	26	27	*M*	*SD*
1. PSSTotal														34.50	4.773
2. SAFETot														33.63	17.757
3. IRRS_CR														22.63	9.648
4. IRRS_Ins														3.25	4.443
5. IRRS_Ind														9.18	6.305
6. AUDITTot														3.89	3.937
7. DUHQ1														1.59	.490
8. DUHQ1b														2.53	2.094
9. DUHQ2														1.99	.091
10. DUHQ3														2.00	.041
11. WASTotal														237.04	32.162
12. MASPADTr														84.67	12.541
13. MASPADAs														70.81	10.382
14. ACSI_Cog														14.27	6.457
15. ACSI_Spi	-													9.36	5.697
16. ACSI_Col	.622**	-												9.78	4.802
17. ACSI_Rit	.284**	.283**	-											.48	1.327
18. BMMRS_ECF	-.651**	-.314**	-.093*	-										16.61	8.101
19. BMMRS_NRI	-.129**	-.093*	-.192**	.110**	-									6.94	1.279
20. BMMRS_PS	-.587**	-.383**	-.131**	.700**	.083*	-								8.83	2.736
21. BMMRS_PG	-.120**	-.135**	-.192**	-.009	.221**	-.039	-							7.13	1.262
22. BMMRS_RCS	-.447**	-.223**	-.004	.571**	.102*	.427**	-.051	-						3.97	1.918
23. BMMRS_PRP	-.679**	-.348**	-.254**	.577**	.185**	.544**	.102*	.467**	-					16.69	5.442
24. BMMRS_FOR	-.305**	-.149**	-.003	.504**	.003	.484**	-.149**	.357**	.353**	-				5.18	1.587
25. BCOPE_EF	.138**	.322**	.083*	-.023	-.060	.014	-.188**	-.012	-.006	.138**	-			20.65	5.205
26. BCOPE_PF	.162**	.349**	.001	-.105*	.095*	-.171**	.083*	-.051	-.015	-.115**	.453**	-		23.05	4.682
27. BCOPE_SU	-.057	-.005	.048	.122**	-.036	.098*	-.153**	.152**	.091*	.127**	.198**	.005	-	2.53	1.157

**. Correlation is significant at the 0.01 level (2-tailed).*. Correlation is significant at the 0.05 level (2-tailed).a. Cannot be computed because at least one of the variables is constant.

Table 4. Fit Indices for Proposed and Modified Measurement and Structural Models

Model	χ^2	RMSEA	CFI	χ^2/df
Proposed Measurement	562.34*	0.09	0.84	5.57
Proposed Structural	562.34*	0.09	0.84	5.57
Modified Structural	105.01*	0.06	0.96	3.28
PWIs Structural	78.61**	0.06	0.97	2.46
HBCUs Structural	48.54*	0.05	0.97	1.52

Note. RMSEA=Root mean square error of approximation; CFI= comparative fit index; χ^2/df = Normed chi-square. * $p < 0.05$, ** $p < 0.01$

Table 5. Bootstrapped Indirect Effects of Race-Related Stress on Alcohol Use via African-Centered Cognitive Coping Strategies at Specific Values of the Moderator

	IRRS_CR				IRRS_INS				IRRS_IND			
	β	SE	LL BC	UL BC	β	SE	LL BC	UL BC	β	SE	LL BC	UL BC
ECF												
-1 SD	.0073	.0044	.0009	.0213	.0209	.0115	.0043	.0509	.0130	.0074	.0028	.0328
Mean	**.0086***	.0035	.0029	.0185	.0219	.0082	.0078	.0441	**.0140***	.0055	.0049	.0275
+1 SD	.0100	.0057	.0018	.0249	.0222	.0125	.0041	.0596	.0148	.0087	.0026	.0377
PS												
-1 SD	.0070	.0043	.0000	.0196	.0222	.0110	.0064	.0515	.0183	.0086	.0051	.0406
Mean	**.0083***	.0035	.0028	.0172	.0213	.1082	.0076	.0449	.0144	.0057	.0051	.0296
+1 SD	.0091	.0059	-.0003	.0249	.0204	.0126	.0002	.0600	.0108	.0075	.0006	.0345
PG												
-1 SD	.0053	.0046	-.0044	.0180	.0083	.0080	-.0067	.0335	.0078	.0066	-.0048	.0282
Mean	**.0059***	.0030	.0013	.0136	**.0133***	.0067	.0031	.0351	**.0096***	.0048	.0019	.0221
+1 SD	.0055	.0040	.0000	.0182	.0182	.0108	.0017	.0526	.0111	.0069	.0013	.0334
PRP												
-1 SD	.0072	.0046	.0006	.0207	.0107	.0091	-.0031	.0355	.0103	.0077	-.0005	.0306
Mean	.0092	.0036	.0034	.0184	**.0206***	.0080	.0069	.0428	.0144	.0057	.0054	.0292
+1 SD	.0103	.0056	.0019	.0248	**.0297***	.0145	.0067	.0720	.0162	.0087	.0030	.0395
FOR												
-1 SD	.0051	.0032	.0000	.0157	.0223	.0120	.0052	.0542	.0106	.0069	.0015	.0292
Mean	.1083	.0035	.0030	.0181	.0203	.0081	.0065	.0435	.0133	.0055	.0043	.0285
+1 SD	.0123	.0061	.0009	.0316	.0180	.0102	.0007	.0544	.0162	.0085	.0014	.0438

Note. Bold values represent the values at which a moderating effect was significant. * $p < 0.05$; $N = 5000$ Bootstrapping resamples; LL BC and UL BC = Lower level and Upper level of the bias corrected confidence interval for $\alpha = 0.05$; IRRS_CR = Cultural racism; IRRS_INS = Institutional racism; IRRS_IND = Individual racism; ECF = Experiential comforting faith; PS = Personal spirituality; PG = Punishing God; PRP = Private religious practices; FOR = Forgiveness.

Table 6. Bootstrapped Indirect Effects of Race-Related Stress on Coping Motivated Substance Use via African-Centered Cognitive Coping Strategies at Specific Values of the Moderator

	IRRS_CR				IRRS_INS				IRRS_IND			
	β	SE	LL BC	UL BC	β	SE	LL BC	UL BC	β	SE	LL BC	UL BC
ECF												
-1 SD	.0025	.0014	.0003	.0077	**.0077***	.0036	.0016	.0189	**.0050***	.0024	.0010	.0122
Mean	**.0027***	.0011	.0008	.0058	**.0071***	.0025	.0023	.0149	**.0044***	.0017	.0014	.0099
+1 SD	.0028	.0017	.0002	.0081	.0064	.0037	.0002	.0186	.0039	.0025	-.0003	.0112
PS												
-1 SD	.0018	.0012	.0000	.0056	.0059	.0031	.0013	.0146	**.0051***	.0025	.0012	.0118
Mean	**.0028***	.0011	.0009	.0062	**.0073***	.0026	.0023	.0152	**.0047***	.0017	.0016	.0101
+1 SD	**.0040***	.0020	.0070	.0098	**.0087***	.0043	.0015	.0223	.0041	.0025	.0003	.0120
PG												
-1 SD	**.0034***	.0016	.0002	.0092	**.0062***	.0030	.006	.0169	**.0049***	.0024	.0005	.0135
Mean	.0019	.0009	.0004	.0047	**.0044***	.0021	.0010	.0115	**.0032***	.0015	.0007	.0079
+1 SD	.0009	.0009	-.0004	.0044	.0027	.0026	-.0014	.0123	.0016	.0017	.0012	.0075
PRP												
-1 SD	.0024	.0014	.0002	.0068	.0046	.0029	.0003	.0133	.0039	.0024	.0002	.0109
Mean	.0029	.0011	.0010	.0063	**.0068***	.0025	.0022	.0146	**.0048***	.0017	.0016	.0104
+1 SD	.0032	.0017	.0006	.0081	**.0088***	.0043	.0016	.0214	.0050	.0026	.0090	.0125
FOR												
-1 SD	.0014	.0010	.0000	.0040	.0059	.0035	.0010	.0150	.0033	.0021	.0004	.0089
Mean	**.0027***	.0011	.0009	.0060	**.0068***	.0025	.0022	.0146	**.0040***	.0017	.0013	.0095
+1 SD	**.0045***	.0019	.0009	.0114	**.0070***	.0034	.0010	.0199	**.0056***	.0026	.0005	.0142

Note. Bold values represent the values at which a moderating effect was significant**.** * $p <$ 0.05; $N = 5000$ Bootstrapping resamples; LL BC and UL BC = Lower level and Upper level of the bias corrected confidence interval for $\alpha = 0.05$; IRRS_CR = Cultural racism; IRRS_INS = Institutional racism; IRRS_IND = Individual racism; ECF = Experiential comforting faith; PS = Personal spirituality; PG = Punishing God; PRP = Private religious practices; FOR = Forgiveness.

Table 7. Estimates, Standard Errors, *z* statistics, and Significance Values of the Conditional Indirect Effects for Significant Moderated Models of Race-Related Stress

	IRRS_CR				IRRS_INS				IRRS_IND			
	β	SE	z	*p*	β	SE	z	*p*	β	SE	z	*p*
ECF												
-1 SD	.0073	.0044	1.65	.09	-	-	-	-	.0130	.0074	1.75	.08
Mean	**.0086***	.0035	2.46	.01	-	-	-	-	**.0140***	.0055	2.53	.01
+1 SD	.0100	.0057	1.74	.08	-	-	-	-	.0148	.0087	1.70	.09
PS												
-1 SD	.0070	.0043	1.61	.11	-	-	-	-	-	-	-	-
Mean	**.0083***	.0035	2.41	.02	-	-	-	-	-	-	-	-
+1 SD	.0091	.0059	1.53	.12	-	-	-	-	-	-	-	-
PG												
-1 SD	.0053	.0046	1.55	.25	.0083	.0080	1.04	.30	.0078	.0066	1.18	.24
Mean	**.0059***	.0030	1.98	.04	**.0133***	.0067	1.99	.04	**.0096***	.0048	1.99	.04
+1 SD	.0055	.0040	1.39	.17	.0182	.0108	1.68	.09	.0111	.0069	1.60	.11
PRP												
-1 SD	-	-	-	-	.0107	.0091	1.17	.24	-	-	-	-
Mean	-	-	-	-	**.0206***	.0080	2.57	.01	-	-	-	-
+1 SD		-	-	-	**.0297***	.0145	2.05	.04	-	-	-	-

Note. Bold values represent the values at which a moderating effect was significant. * $p < 0.05$; $N = 5000$ Bootstrapping resamples; IRRS_CR = Cultural racism; IRRS_INS = Institutional racism; IRRS_IND = Individual racism; ECF = Experiential comforting faith; PS = Personal spirituality; PG = Punishing God; PRP = Private religious practices; FOR = Forgiveness.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

Summary

The purpose of this study was to explore coping behavior in a sample of African descended 18-35 year olds; with particular emphasis on coping motivated substance use behavior. It was hoped that by employing a multidimensional assessment of culture that the protective benefits of one's culture could be further understood with regard to its ability to buffer the effects of psychological distress. Increasing the understanding of culture, particularly with regard to people of African descent, can begin to redefine the landscape with which we understand the relationship between race/ethnicity and substance use. Stated differently, in the extant literature and the field of substance abuse treatment and research, race (specifically Black/African American) is often purported to be a risk factor for substance abuse. Thus, the aim of this study was to further nuance these dialogues to understand how one's relationship to their culture informs the coping strategies they employ to mediate psychological distress resultant from stressful experiences.

The researcher relied on questionnaires administered anonymously online for data collection. Participants included 603 self-identified Black/African/African-American undergraduate students between the ages of 18-35. Participation required that students be currently enrolled in 1 of 4 universities in the South. The analytic methodology was two-fold, involving structural equation modeling and moderated mediation as outlined in Chapter 3. The arguments advanced in this study were:

1. Culturally congruent coping strategies would mediate the effects that stress have on substance use behavior, and

2. Ethnocultural factors would moderate coping behaviors African Americans' employed in response to experienced stressors.

What follows is a discussion of the major findings and conclusions drawn from this research. Additionally, implications for these findings and areas for further study are provided.

Conclusions

Results from this study revealed that culturally congruent coping strategies best mediated the relationship between experiences with stressors stemming from one's ethnicity or culture and substance use behaviors. Consistent with Lazarus and Folkman's (1980) understandings of the relationship between stress and coping, that is that stress is experienced when then demands of the stressor taxes one's ability to adequately respond, findings in this study demonstrate that collective coping strategies accounted for most of the variance in coping behavior. This suggests a reliance on extended support networks (social and kinship) to navigate race related and acculturative stressors. This underscores an underlying tenet of this study, which argues that the concern and responsibility for the well-being of others that is central to an Africentric paradigm would emerge in the coping processes of African Americans. Daly and colleagues (1995) have noted that the "Africentric orientation to coping through interpersonal processes has endured in a dominant Western culture that values rationality, material achievement, and individualism (pg. 240)." It appears that this interpersonal process orientation to coping is evidenced in this sample. Further, the reliance on social support to buffer the effects of

stress has been previously established in the literature (Ensel & Lin, 1991).

The significant emergence of African-centered coping strategies satisfies this study's purpose of exploring coping behaviors in African American young adults. Of particular strength, this study addresses a lacuna in the field by utilizing African-centered and culturally congruent instruments allowing for cultural based interpretations of the evidenced relationships. Highlighted in the findings is the notion that the employment of culturally congruent coping strategies buffers the negative effects of culturally bound stressors. Peters (Peters, 2006) has noted that racism is an ever-present force in the lives of African Americans in the U.S. Findings corroborate Peters' assertion in that race-related stressors at the individual, institutional and cultural levels were significant predicators of stress in this sample.

Leading acculturation scholars Landrine & Klonoff (1996) argue for the defining of African Americans as a cultural group (rather than a racial group) such that researchers begin to explore the extent to which culturally based phenomena affect the community, among them being acculturation. Acculturative process research has been uneven across major ethnic groups in the US, being grossly understudied in people of African descent. Undoubtedly, this hampers our ability to adequately assess and conceptualize these phenomena in this population.

One goal of this study was to model the benefits to coping behavior for people of African descent to remain connected to traditional African ways of being, rather than to assimilate. While acculturative stress was a significant predictor of stress in this study, acculturative strategy did not significantly moderate the relationships between stresses, coping strategies, and substance use behavior in this study. Despite failing to reach

significance, protective factors ingrained in one's culture of origin (e.g., strong religious values, extended family networks/kinship, strong sense of spirituality) may have buffered the associated distress and were conceptualized and measured elsewhere in the study and did reach significance, offering support for their protective benefits.

Worldview, specifically an Africentric worldview, was defined as the behaviors, beliefs and values of people of African descent. Worldview orientation was not found to significantly moderate the relationship between stress and substance use behavior as originally hoped. There are several factors that influence one's worldview including but not limited to racial/ethnic identity, socialization, and environment. Researchers (Neblett, Smalls, Ford, Nguyen, & Sellers, 2009) have highlighted the contributions of positive racial socialization to one's connection to their racial identity and pride and endorsement of connection to their racial/ethnic group. While racial identity was not of interest to the goals of this study, racial socialization may indirectly affect one's subscription to an Africentric worldview. Further, many sociological and psychological scholars (Marshall, 1995; Murphy, Steele, & Gross, 2007; Neblett et al., 2009; Ogbu, 2004) have underscored the role of environment in the socialization process. Given that the majority of participants in this study currently attend predominantly white colleges/universities, it is possible that a suppression of Africentric worldview orientation due to environmental factors and socialization process was witnessed in this study.

This study failed to model significant relationships between substance use and coping behavior. This finding appears to be consistent with extant literature endorsing relatively low levels of substance use in African American young adults age 26 and under. Therefore, it stands to reason that significant reliance on substance use would not

emerge in this sample as the average age is 20.49. Given this, follow up analyses were conducted to further explore the impact of culture on coping behavior. Findings suggested that worldview orientation significantly moderated the relationship between acculturative stress and institutional race-related stress and collective coping behavior. Similar relationships were evidenced with regard to African- centered spiritual coping. It was further demonstrated that the subscription to a traditionalist acculturative strategy moderated the relationship between acculturative stress and ritual centered coping behavior. Implicit in Lazarus and Folkmans' understanding of the process of how an individual experiences stress, is the notion that an awareness of one's positioning influences the level to which one experiences stress. Otherwise stated, an awareness of ones difference with regard to contact with another ethnic group is necessary to facilitate an experience of acculturative stress. This awareness is thus likely borne of one's struggle to maintain their own heritage within the other ethnic group, or the struggles associated with assimilating into the other ethnic group.

Further, the sample for this study was derived from four colleges/universities; two Predominately White Institutions (PWIs) and two Historically Black Colleges and Universities (HBCUs). As expected, significant differences emerged between students at these respective types of institutions in alcohol use behavior (greater at PWIs) and experiences with race-related stress (greater at PWIs). It stands to reason that coping motivated substance use would be more widely endorsed in an environment less rooted in an Africentric paradigm. What's more, this environment also has greater propensity to promulgate negative messages toward and about underrepresented racial/ethnic groups that may be interpreted as racially motivated and contribute to race-related stress.

Commitment to religious/spiritual belief systems produced the most robust finding in this study. Findings suggest reliance on religious/spiritual coping strategies, which are consistent with an Africentric paradigm rooted in spiritualism. Additionally, the emergence of religious/spiritual coping behaviors received further validation in that 84% of the sample reported identifying with a religious/spiritual belief system (i.e., Christian or Muslim).

The positive benefits of religious/spiritual coping are well documented (see Chapter 2). As hypothesized, the degree to which one finds comfort in their religious practices moderated the salience of race related stress and subsequence alcohol use as a means of coping. More specifically, belief in the divine and the belief in the ability to commune with one's higher power significantly moderated the effects of cultural and individual racism. These moderating effects of experiential comfort underscore the protective and healing benefits of religiousness/ spirituality through drawn strength from the divine, acknowledging the presence of the divine, and feeling the love and protection of the divine. Stated differently, the absence of such perspectives may increase one's reliance on alcohol to alleviate the distress associated with pervasive negative messages toward or about one's cultural group and personal experiences with racism and discrimination.

Also of interest, religious/spiritual beliefs that aligned with feelings of being punished or abandoned by God significantly moderated, though negatively, the effects of all types of race related stress (cultural, individual, and institutional). These findings suggest that the mediating effects of African- centered cognitive coping strategies in the relationship between race-related stress and alcohol use are not consistent with beliefs in

punishment from the divine. Thus, as the reliance on African- centered cognitive coping strategies increases, beliefs in a punishing God decrease. Given the centrality of spirituality to the Africentric paradigm, it would hold that belief in a punishing God would be counter to the lived experiences of people of African descent.

Lastly, an inverse relationship was evidenced in the moderation of private religious practices on the relationship between stress and coping behavior. As Raboteau (2001) noted, many enslaved Africans maintained the traditional religious practices of their ancestors, however, recurrent contact with their Catholic European American colonizers spurred the blending of Catholic and African religious practices (e.g., Candomblê, Santería, Vodou). Given the demographics of this sample, the inverse relationship between the religious practices of the sample and those measured using the BMMRS may be reflective of a disconnection between traditional African religious practice and those associated with more westernized religious practices. Otherwise stated, the assessment of private religious practices on the BMMRS may be an indication of forced assimilation consistent with the history of the colonization of religion for people of African descent. Thus given a sample who most strongly identify with a worldview orientation rooted in spiritualism and not assimilated, it would be theoretically congruent than an inverse relationship of private religious practices situated in western understandings of dominant religious practices (e.g. Christian) would be evidenced.

Limitations

The study accomplished its mission of exploring the role of culture in coping and substance use behavior is persons of African descent; however, several limitations are worth noting in this study. First, this study was correlational in nature therefore no

causality between the explored relationships can be determined.

Second, this study employed a web-based survey design for data collection. Web-based surveys may have advantages related to the speed and cost of data collection as well as data quality. However, they may be biased by low and selective participation. While Internet based studies have not been found to produce results different from other research methodologies, it is important to note the potentiality for selection bias that may influence study outcomes.

Third, caution should be used when generalizing these findings to the experiences of stress and substance use with all people of African descent. Although the sample size was large, it is not clear to what extent the current sample is representative of African Americans 18-35 years old. Additionally, participants in this study were highly educated as evidenced by current enrollment in a 4-year institution (relative to the 7% of African Americans enrolled in college in 2010; US Census, 2010). Extant literature has highlighted the protective benefits of education with regard to substance use in African Americans, thus substance use trends in college samples may not accurately represent substance use behavior in community samples.

Lastly, this study was conducted solely with students in the Southeastern United States, which has a particularly long history of anti-black racial tensions, which despite the critical mass of people of African descent may still influence one's exposure to race-related stressors. Thus, the reports of experiences with race-related stress may be unduly influenced by participant's geographical location.

Implications

African-American's face unique stressors associated with race and acculturation given the history and lingering effects of intergroup race relations in the United States. As demonstrated in this study, these stressors are significant predictors of stress in educated, African American young adults. This suggests that the pervasive and systemic nature of these stressors exceeded one's ability to cope on an individual level. In this study, race related and acculturative stress were significant predictors of alcohol use in an attempt to cope with the associated negative affective emotional experiences. These findings underscore the importance of understanding the salient experiences of stress in the lives of African Americans when assessing and treating substance use and abuse.

The results of the present study also further our understanding of the role of culture in substance use behavior. Moreover, one's connection to culturally congruent coping strategies helps buffer the negative impacts of racism and reduces alcohol use. Such findings are important in reshaping the discourse related to the role of race and black culture in the substance use literature, which often purports being African American as a risk factor for substance use. Where connection to one's cultural group is low (as evidenced by high levels of acculturation), increasing cultural group identification, extension of social/kinship groups, and connection to religious/spiritual belief systems may prove to be an important components of treatment for persons of African descent.

Additionally, because religious affiliation, religiosity, and religious coping can significantly relate to stress and mental health, assessment of these factors should be conducted at the start of therapy, and can be incorporated in an ongoing dialogue

throughout the therapeutic process. Religious affiliation- or the religious beliefs a person subscribes to- can inform expectations about the client's stress, coping behavior and mental health. Psychologists have historically exhibited bias against discussing religiosity in the therapeutic setting and have dismissively viewed religiosity as part of the problem rather than as part of the solution (Coyle, 2001; Fallot, 2001). It is encouraged that therapists avoid such positions in light of research demonstrating the positive impact that religiosity (life commitment to religious beliefs and rituals) and religious coping (using religiously-based methods of coping with stress or problems) can have on reducing stress and improving mental health (Koenig et al., 2001; Levin & Chatters, 1998; Pargament, 1997; Pargament & Brant, 1998; Plante & Sharma, 2001; Siegel et al., 2001).

More recently, psychology as a discipline has called for increased awareness, knowledge, skills and recognition of multicultural sensitivity and responsiveness about ethnically and racially different individuals (Guidelines on multicultural education, training, research, practice, and organizational change for psychologists, 2003; Sue, Arredondo, & McDavis, 1992). However, the bias in Western models of mental health has tended to promulgate an ethnocentric agenda in their tendency to spurn clients' ethnic traditions while viewing the American culture as the gold standard for psychological adjustment (Copeland, 1983) continues to loom large. As outlined in the Guidelines on Multicultural Education, Training, Research, Practice, and Organizational Change for Psychologists (2003), this awareness is best served through a thorough understanding and awareness of self as a cultural being. Clinicians should remain aware of this bias, as bicultural acculturative strategies have been found to predict psychological distress in persons of African descent. A clinician can also support individuals coping with

acculturation and race-related stressors by teaching or promoting culturally-sensitive stress-reduction techniques, validating real and perceived experiences of racism and discrimination or attempting to address the specific challenges clients face.

Future Directions

Results in this study supported some hypotheses proposed by previous researchers and did not support others. It will be important for future studies to examine the hypotheses that were not supported by the current study to determine their validity, or if the results of this study represent idiosyncratic differences.

Second, there were many areas in this research that did not receive adequate attention and deserves further exploration. For example, due to the skewed gender representation gender differences were not explored in this study. It should be noted however, that the female to male ratio nationally for African American students enrolled in 4- year colleges/universities is 3:1, proposed to be as high as 4:1 in large predominantly White institutions (U.S Department of Education, 2008). Extant literature highlights drinking difference between genders with males consuming significantly greater quantities of alcohol, however, males were significantly underrepresented in the overall sample. Future studies should focus on a more balanced gender representation to further understand how these experiences are impacted by gender. Additionally, further exploration of between group differences is warranted to provide greater understanding of the complex structures of culture in the sample. This study explored between group differences by institution type, however, it may prove beneficial to explore influences of socio-economic status, immigrant status, and parental substance use history.

Lastly, replication of this study in a representative community sample will add depth to discussions around the protective features of African culture. Arguably, education has been shown to be a protective factor for substance use and provides greater access to resources (including monetary and coping resources), thus it will be important to understand the impact of stressors when educational attainment is controlled for. Further, exploring the impact of general life stressors in a community sample will further nuance this discussion, as general life stress was not a significant predictor in this sample.

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APPENDIX A

INVITATION TO PARTICIPATE

Dear <Participant>,

My name is Delishia Pittman and I am a doctoral candidate in the counseling psychology program at the University of Georgia. I am collecting data for my dissertation that will examine the influences of culture on coping strategies in persons of African descent.

Please note that the only requirements to participate in this study are that you self-identify as a person of African descent (including all ethnic distinctions), are currently enrolled in a college or university, and are between the ages of 18-35.

Although every reasonable effort has been taken, confidentiality during actual Internet communication procedures cannot be guaranteed. However, once the completed surveys are received, they will be stored in a secure database, allowing access only to the researchers. Your participation in this study WILL NOT require the disclosure of identifiers such as name, date of birth, address, or citizenship status. The maximum time needed to complete the entire survey is approximately forty-five minutes. This includes completing several measures and a short demographic questionnaire.

To participate in the survey, click the following link. You will be redirected to a confidential and anonymous online survey. Your e-mail address will not be linked to your survey results at any time. You will need to utilize this unique token to access the survey: xxxxxxx

https://hwemudua.coe.uga.edu/limesurvey/index.php?lang=en&sid=81948&token=xxxxxxx

In appreciation of the contribution of your time, you will receive a $5 electronic gift certificate for use at a local retailer. If you have any questions or concerns, please do not hesitate to email me at dmp21@uga.edu.

Thank you in advance for your participation.

Sincerely,

Delishia M. Pittman, M.A.
Counseling Psychology, Ph.D. Candidate
University of Georgia

This study has been reviewed by the University of Georgia Institutional Review Board. Additional questions regarding this research study should be addressed to: IRB Chairperson, University of Georgia, 612 Boyd Graduate Studies Research Center, Athens, Georgia, 30602-3199, IRB@uga.edu or by phone at (706) 542-5969.

If you do not want to participate in this survey and don't want to receive any more invitations please click the following link:
https://hwemudua.coe.uga.edu/limesurvey/optout.php?lang=en&sid=81948&token=xxxxxxx

APPENDIX B

REMINDER EMAIL

Dear <Participant>,

You were recently invited to participate in a survey investigating the influence of culture on coping strategies in persons of African descent. We note that you have not yet completed the survey, and wish to remind you that the survey is still available should you wish to take part.

The survey is titled:

"Advancing the understanding of culture as a moderator of the stress coping relationship in African American undergraduates v.2.0"

To participate, please click on the link:

https://hwemudua.coe.uga.edu/limesurvey/index.php?lang=en&sid=63241&token=yempbzzqvz

Sincerely,

Delishia M. Pittman, M.A.
Doctoral Candidate
University of Georgia

APPENDIX C

INFORMED CONSENT

Investigator Identification: This research study is being conducted by Delishia M. Pittman, M.A., a doctoral candidate in Counseling Psychology at the University of Georgia, under the supervision of Dr. Ezemenari M. Obasi.

Study Description: The purpose of this study is to examine the coping processes of people of African descent in the United States. You have been contacted because you have self-identified as African American and are enrolled as an undergraduate at Georgia State University. The survey will consist of a series of questionnaires including questions asking for your demographic information and your alcohol and/or drug use. Approximately 400 participants are being recruited for this study. The survey will take you approximately 45-60 minutes to complete. You will be able to save your answers as you work. Participation is strictly voluntary and you can terminate the survey at any time. If you do not wish to participate in this project, you can close this web page at this time.

Possible Risks and Benefits: Although there are no direct benefits to you as a result of your participation in this study, this study contributes to our current understanding of how people of African descent cope with varied stressors related to their unique experiences in the U.S and further how the effects of stress differentially contribute to health disparities in underrepresented racial/ethnic groups. This study provides no more than minimal risk of discomfort, stress, or harm to you, although some participants may feel uncomfortable answering questions about their experiences with racism, background, or substance use.

Participant Information: Your participation in this research is completely voluntary. You may refuse to participate or discontinue your participation in the study at any time without penalty or loss of benefits to which you are otherwise entitled. You may also choose to not answer any question(s) that you do not wish to, for any reason. The information that you provide will be kept confidential. Your name will not appear anywhere on the questionnaires. All demographic information will be combined with other participants' information, so no individual responses will be reported. There may be information collected during this study that will ask about your substance use behaviors as a minor. This information is being used solely for the purposes of research and will not be disclosed or reported to outside authorities.

On-Line Data Collection: This project has been approved by the University of Georgia Institutional Review Board. Approval of this project only signifies that the procedures adequately protect the rights and welfare of the participants. Please note that absolute confidentiality cannot be guaranteed due to the limited protections of Internet access. All individually identifiable information obtained in this study is strictly confidential. All collected data will be batched and with no email addresses and no token ID numbers. To minimize the risk of breaching confidentiality, a secure server (SSL protocol) is being

utilized. Your email address will be kept independent of survey data. Following the close of the study your email address will be securely destroyed. In addition, the Institutional Review Board and University or government officials responsible for monitoring this study may inspect these records.

Questions or Concerns: In the event that you have any questions or concerns about this study, you may contact Delishia M. Pittman at dmp21@uga.edu or (602) 628-7008, or contact Dr. Ezemenari M. Obasi at obasi@uga.edu or at (706) 542-4792. Additional questions or problems regarding your rights as a research participant should be addressed to IRB Chairperson, University of Georgia, 612 Boyd Graduate Studies Research Center, 30602-3199, IRB@uga.edu or by phone at (706) 542-5969.

Electronic Consent: Please indicate your choice below. Clicking on the "continue to next page" button below indicates that you have read and understand the terms of this study and thus voluntarily agree to participate. If you do NOT wish to participate in the study, please decline participation by closing the window.

APPENDIX D

ELECTRONIC DEBRIEFING

Thank you for your time and participation.

In the event that you have any questions or concerns about this study, you may contact Delishia M. Pittman at dmp21@uga.edu or (602) 628-7008, or contact Dr. Ezemenari M. Obasi at obasi@uga.edu or at (706) 542-4792. Additional questions or problems regarding your rights as a research participant should be addressed to The Chairperson, Institutional Review Board, University of Georgia, 612 Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411; Telephone (706) 542-3199; E-Mail Address IRB@uga.edu.

APPENDIX E

SOCIAL, ATTITUDINAL, FAMILIAL AND ENVIRONMENTAL ACCULTURATIVE STRESS SCALE – REVISED

Below are a number of statements that might be seen as stressful. For each statement that you have experienced please indicate how stressful you find the situation.

0 = HAVE NOT EXPERIENCED
1 = NOT AT ALL STRESSFUL
2 = SOMEWHAT STRESSFUL
3 = MODERATELY STRESSFUL
4 = VERY STRESSFUL
5 = EXTREMELY STRESSFUL

---

1. I feel uncomfortable when others make jokes about or put down people of my ethnic background
2. I have more barriers to overcome than most people.
3. It bothers me that family members I am close to do not understand my new values.
4. Close family members have different expectations about my future than I do
5. It is hard to express to my friends how I really feel
6. My family does not want me to move away but I would like to
7. It bothers me to think that so many people use drugs.
8. It bothers me that I cannot be with my family.
9. In looking for a good job, I sometimes feel that my ethnicity is a limitation.
10. I don't have any close friends.
11. Many people have stereotypes about my culture or ethnic group and treat me as if they are
12. I don't feel at home.
13. People think I am unsociable when in fact I have trouble communicating in English.
14. I often feel that people actively try to stop me from advancing.
15. It bothers me when people pressure me to become part of the main culture.
16. I often feel ignored by people who are supposed to assist me. .
17. Because I am different I do not get the credit for the work
18. It bothers me that I have an accent.
19. Loosening the ties with my country is difficult.
20. I often think about my cultural background
21. Because of my ethnic background, I feel that others often exclude me from participating in their activities
22. It is difficult for me to "show off" my family.
23. People look down upon me if I practice customs of my culture
24. I have trouble understanding others when they speak

APPENDIX F

INDEX OF RACE RELATED STRESS – BRIEF FORM

Instructions

This survey questionnaire is intended to sample some of the experiences that Black people have in this country because of their "blackness." There are many experiences that a Black person can have in this country because of his/her race. Some events happen just once, some more often, while others may happen frequently. Below you will find listed some of these experiences, for which you are to indicate those that have happened to you or someone very close to you (i.e., a family member or loved one). It is important to note that a person can be affected by those events that happen to people close to them; this is why you are asked to consider such events as applying to your experiences when you complete this questionnaire. Please circle the number on the scale (0 to 4) that indicates the reaction you had to the event at the time it happened. Do not leave any items blank. If an event has happened more than once, refer to the first time it happened. If an event did not happen circle 0 and go on to the next item.

0 = This never happened to me.
1 = This event happened, but did not bother me.
2 = This event happened & I was slightly upset.
3 = This event happened & I was upset.
4 = This event happened & I was extremely upset.

1. You notice that crimes committed by White people tend to be romanticized, whereas the same crime committed by a Black person is portrayed as savagery, and the Black person who committed it, as an animal.

2. Sales people/clerks did not say thank you or show other forms of courtesy and respect (e.g., put your things in a bag) when you shopped at some White/ non-Black owned businesses.

3. You notice that when Black people are killed by the police, the media informs the public of the victim's criminal record or negative information in their background, suggesting they got what they deserved.

4. You have been threatened with physical violence by an individual or group o f White / non- Blacks

5. You have observed that White kids who commit violent crimes are portrayed as "boys being boys," while Black kids who commit similar crimes are wild animals.

6. You seldom hear or read anything positive about Black people on radio, TV, in

newspapers, or history books.

7. While shopping at a store the sales clerk assumed that you couldn't afford certain items (e.g., you were directed toward the items on sale).

8. You were the victim of a crime and the police treated you as if you should just accept it as part of being Black.

9. You were treated with less respect and courtesy than Whites and other non-Blacks while in a store, restaurant, or other business establishment.

10. You were passed over for an important project although you were more qualified and competent than the White/non-Black person given the task.

11. Whites/non-Blacks have stared at you as if you didn't belong in the same place with them; whether it was a restaurant, theater, or other place of business.

12. You have observed the police treat White/non-Blacks with more respect and dignity than they do Blacks.

13. You have been subjected to racist jokes by Whites/non-Blacks in positions of authority and you did not protest for fear they might have held it against you.

14. While shopping at a store, or when attempting to make a purchase, you were ignored as if you were not a serious customer or didn't have any money.

15. You have observed situations where other Blacks were treated harshly or unfairly by Whites/non-Blacks due to their race.

16. You have heard reports of White people/non-Blacks who have committed crimes, and in an effort to cover up their deeds falsely reported that a Black man was responsible for the crime.

17. You notice that the media plays up those stories that cast Blacks in negative ways (child abusers, rapists, muggers, etc.), usually accompanied by a large picture of a Black person looking angry or disturbed.

18. You have heard racist remarks or comments about Black people spoken with Impunity by White public officials or other influential White people.

19. You have been given more work, or the most undesirable jobs at your place of employment while the White/non-Black of equal or less seniority and credentials is given less work, and more desirable tasks.

20. You have heard or seen other Black people express a desire to be White or to have White physical characteristics because they disliked being Black or thought it was ugly.

21. White people or other non-Blacks have treated you as if you were unintelligent and needed things explained to you slowly or numerous times.

22. You were refused an apartment or other housing; you suspect it was because you're Black.

APPENDIX G

MEASUREMENT OF ACCULTURAITVE STRATEGIES FOR PEOPLE OF AFRICAN DESCENT*

Answer each question as honestly as you possibly can by identifying the responses that best reflects your agreement/disagreement to each item. There are no right or wrong answers. Provide only one response to each item.

1 = Strongly Disagree
2 = Disagree
3 = Slightly Disagree
4 = Slightly Agree
5 = Agree
6 = Strongly Agree

1. I take a great deal of pride in being a person of African ancestry (African, African American, Black Brazilian, Trinidadian, Jamaican, etc).

2. If I have children, I will give them an African naming ceremony.

3. I do not feel connected to my African heritage.

4. If I have children, I will raise them to be American first and a person of African ancestry second.

5. I was raised to maintain cultural practices that are consistent with people of African descent.

* These items represent a sample of the items included in the MASPAD. The full scale can be obtained by contacting Dr. Ezemenari M. Obasi at Obasi@uga.edu.

APPENDIX H

WORDVIEW ANALYSIS SCALE*

Please answer each question as honestly as you possibly can by choosing the response that reflects your agreement/disagreement to each item. There is no right or wrong answer so please respond honestly. Provide only one response to each item.

1 = Strongly Disagree
2 = Disagree
3 = Slightly Disagree
4 = Slightly Agree
5 = Agree
6 = Strongly Agree

1. I enjoy participating in family reunions.

2. My cultural heritage is often misrepresented and/or ignored in U.S. educational systems.

3. I do not feel like a spiritual person.

4. Spiritually blessed objects can protect a person from harm.

5. I existed spiritually before I was born.

* These items represent a sample of the items included in the WAS. The full scale can be obtained by contacting Dr. Ezemenari M. Obasi at Obasi@uga.edu.

APPENDIX I

BRIEF MULTIDIMENSION MEASURE OF RELGIOUSNESS AND SPIRITUALITY – BRIEF FORM

The following questions deal with possible spiritual experiences. To what extent can you say you experience the following:

1. I feel God's presence.
    1 - Many times a day
    2 - Every day
    3 - Most days
    4 - Some days
    5 - Once in a while
    6 - Never or almost never

2. I find strength and comfort in my religion.
    1 - Many times a day
    2 - Every day
    3 - Most days
    4 - Some days
    5 - Once in a while
    6 - Never or almost never

3. I feel deep inner peace or harmony.
    1 - Many times a day
    2 - Every day
    3 - Most days
    4 - Some days
    5 - Once in a while
    6 - Never or almost never

4. I desire to be closer to or in union with God.
    1 - Many times a day
    2 - Every day
    3 - Most days
    4 - Some days
    5 - Once in a while
    6 - Never or almost never

5. I feel God's love for me, directly or through others.
    1 - Many times a day
    2 - Every day
    3 - Most days

4 - Some days
5 - Once in a while
6 - Never or almost never

6. I am spiritually touched by the beauty of creation.
1 - Many times a day
2 - Every day
3 - Most days
4 - Some days
5 - Once in a while
6 - Never or almost never

7. I believe in a God who watches over me.
1 - Strongly agree
2 - Agree
3 - Disagree
4 - Strongly disagree

8. I feel a deep sense of responsibility for reducing pain and suffering in the world.
1 - Strongly agree
2 - Agree
3 - Disagree
4 - Strongly disagree

Because of my religious or spiritual beliefs:

9. I have forgiven myself for things that I have done wrong.
1 - Always or almost always
2 - Often
3 - Seldom
4 - Never

10. I have forgiven those who hurt me.
1 - Always or almost always
2 - Often
3 - Seldom
4 - Never

11. I know that God forgives me.
1 - Always or almost always
2 - Often
3 - Seldom
4 - Never

12. How often do you pray privately in places other than at church or synagogue?
1 - More than once a day

2 - Once a day
3 - A few times a week
4 - Once a week
5 - A few times a month
6 - Once a month
7 - Less than once a month
8 - Never

13. Within your religious or spiritual tradition, how often do you meditate?
1 - More than once a day
2 - Once a day
3 - A few times a week
4 - Once a week
5 - A few times a month
6 - Once a month
7 - Less than once a month
8 - Never

14. How often do you watch or listen to religious programs on TV or radio?
1 - More than once a day
2 - Once a day
3 - A few times a week
4 - Once a week
5 - A few times a month
6 - Once a month
7 - Less than once a month
8 - Never

15. How often do you read the Bible or other religious literature?
1 - More than once a day
2 - Once a day
3 - A few times a week
4 - Once a week
5 - A few times a month
6 - Once a month
7 - Less than once a month
8 - Never

Think about how you try to understand and deal with major problems in your life. To what extent is each of the following involved in the way you cope?

16. I look to God for strength, support, and guidance.
1 - A great deal
2 - Quite a bit
3 - Somewhat
4 - Not at all

17. I feel God is punishing me for my sins or lack of spirituality.
    1 - A great deal
    2 - Quite a bit
    3 - Somewhat
    4 - Not at all

18. I wonder whether God has abandoned me.
    1 - A great deal
    2 - Quite a bit
    3 - Somewhat
    4 - Not at all

These questions are designed to find out how much help the people in your congregation would provide if you need it in the future.

19. If you were ill, how much would the people in your congregation help you out?
    1 - A great deal
    2 - Some
    3 - A little
    4 - None

20. If you had a problem or were faced with a difficult situation, how much comfort would the people in your congregation be willing to give you?
    1 - A great deal
    2 - Some
    3 - A little
    4 - None

21. How often do the people in your congregation make too many demands on you?
    1 - Very often
    2 - Fairly often
    3 - Once in a while
    4 - Never

22. How often are the people in your congregation critical of you and the things you do?
    1 - Very often
    2 - Fairly often
    3 - Once in a while
    4 - Never

APPENDIX J

ALCOHOL USE DISORDERS IDENTIFICATION TEST

Please circle the answer that is correct for you.

1. How often do you have a drink containing alcohol?

    1. Never
    2. Monthly or less
    3. 2-4 times a month
    4. 2-3 times a week
    5. 4 or more times a week

2. How many standard drinks containing alcohol do you have on a typical day when drinking?

    1. 1 or 2
    2. 3 or 4
    3. 5 or 6
    4. 7 to 9
    5. 10 or more

3. How often do you have six or more drinks on one occasion?

    1. Never
    2. Less than monthly
    3. Monthly
    4. Weekly
    5. Daily or almost daily

4. During the past year, how often have you found that you were not able to stop drinking once you had started?

    1. Never
    2. Less than monthly
    3. Monthly
    4. Weekly
    5. Daily or almost daily

5. During the past year, how often have you failed to do what was normally expected of you because of drinking?

    1. Never
    2. Less than monthly
    3. Monthly
    4. Weekly
    5. Daily or almost daily

6. During the past year, how often have you needed a drink in the morning to get yourself going after a heavy drinking session?

1. Never
2. Less than monthly
3. Monthly
4. Weekly
5. Daily or almost daily

7. During the past year, how often have you had a feeling of guilt or remorse after drinking?

1. Never
2. Less than monthly
3. Monthly
4. Weekly
5. Daily or almost daily

8. During the past year, have you been unable to remember what happened the night before because you had been drinking?

1. Never
2. Less than monthly
3. Monthly
4. Weekly
5. Daily or almost daily

9. Have you or someone else been injured as a result of your drinking?

1. No
2. Yes, but not in the past year
3. Yes, during the past year

10. Has a relative or friend, doctor or other health worker been concerned about your drinking or suggested you cut down?

1. No
2. Yes, but not in the past year
3. Yes, during the past year

APPENDIX K

AFRICULTURUAL COPING SYSTEMS INVENTORY

Please briefly think about a stressful situation that you have experienced in the past week. As it relates to that stressful situation, please indicate to what extent you employed each of the following behaviors.

0 = Does not apply or did not use
1 = Used a little
2 = Used a lot
3 = Used a great deal

1. Prayed that things would work themselves out.

2. Got a group of family or friends together to help with the problem

3. Shared my feelings with a friend or family member

4. Remembered what a parent (or other relative) once said about dealing with these kinds of situations.

5. Tried to forget about the situation

6. Went to church (or other religious meeting) to get help from the group

7. Thought of all the struggles Black people have had to endure and this gave me strength to deal with the situation

8. To keep from thinking about the situation I found other things to keep me busy

9. Sought advice about how to handle the situation from an older person in my family or community

10. Read a scripture from the Bible (or similar book) for comfort and/or guidance

11. Asked for suggestions on how to deal with the situation during a meeting of my organization or club

12. Tried to convince myself that it wasn't that bad

13. Asked someone to pray for me

14. Spent more time than usual doing group activities

15. Hoped that things would get better with time

16. Read passage from a daily meditation book.

17. Spent more time than usual doing things with friends and family

18. Tried to remove myself from the situation

19. Sought out people I thought would make me laugh

20. Got dressed in my best clothing
21. Attended a social event (dance, party, movie) to reduce stress caused by the situation
22. Asked for blessings from a spiritual or religious person
23. Helped others with their problems
24. Lit a candle for strength or guidance in dealing with the problem
25. Sought emotional support from family and friends
26. Burned incense for strength or guidance in dealing with the problem
27. Used a cross or other object for its special powers in dealing with the problem
28. Sung a song to myself to help reduce the stress
29. Found myself watching more comedy shows on TV
30. Left matters in God's hands

APPENDIX L

DRUG HISTORY QUESTIONNAIRE

Please answer honestly the following questions about any drug use behaviors you have engaged in. Please remember that all information provided is kept confidential.

1. Have you ever used cannabis (marijuana, hashish, hash oil)?
    - Yes
        - How many times (in your lifetime)?
        - How many times in the past 6 months?
            - Less than one time per month
            - Once a month
            - 2 to 3 times per month
            - One time per week
            - 2 to 3 times per week
            - 4 to 6 times per week
            - Daily
    - No
2. Have you ever used stimulants (cocaine, crack)?
    - Yes
        - Which one(s)?
        - How many times (lifetime use)?
        - How many times in the past 6 months?
            - Less than one time per month
            - Once a month
            - 2 to 3 times per month
            - One time per week
            - 2 to 3 times per week
            - 4 to 6 times per week
            - Daily
    - No
3. Have you ever used methamphetamine?
    - Yes
        - Which one(s)?
        - How many times in your lifetime?
        - How many times in the last 6 months?
            - Less than one time per month
            - Once a month
            - 2 to 3 times per month
            - One time per week
            - 2 to 3 times per week
            - 4 to 6 times per week
            - Daily

- No

4. Have you ever used amphetamines (e.g., Ritalin, Benzedrine, Dexedrine)?
   - Yes
     - Which one(s)?
     - How many times in your lifetime?
     - How many times in the last 6 months?
       - Less than one time per month
       - Once a month
       - 2 to 3 times per month
       - One time per week
       - 2 to 3 times per week
       - 4 to 6 times per week
       - Daily
   - No

5. Have you ever used benzodiazepines/tranquilizers (i.e., Valium, Librium, Halcion, Xanax, Diazapam, "Roofies")??
   - Yes
     - Which one(s)?
     - How many times in your lifetime?
     - How many times in the last 6 months?
       - Less than once a month
       - Once a month
       - 2 to 3 times per month
       - Once a week
       - 2 to 3 times per week
       - 4 to 6 times per week
       - Daily
   - No

APPENDIX M

DEMOGRAPHIC QUESTIONNAIRE

1. What is your race?
    1. Black
    2. White
    3. Hispanic
    4. Asian
    5. Biracial

2. What is your ethnicity (e.g., African American, European American, Asian American, Native American, Mexican American, Ghanaian, Puerto Rican, British, etc)?

3. What is your sex:
    1. Male
    2. Female
    3. Other

4. Enter your current age (in years)

5. What is your current marital status?

    1. Single, never been married
    2. Not married or not partnered, but living with a significant other
    3. Married or partnered, and living with spouse or partner
    4. Separated or divorced, with financial support from past spouse or partner
    5. Separated or divorced, without financial support from past spouse or partner
    6. Widowed, with financial support from deceased spouse or partner
    7. Widowed, without financial support from deceased spouse or partner

6. What is your current academic standing?
    1. Undergraduate - First Year
    2. Undergraduate - Second Year
    3. Undergraduate - Third Year
    4. Undergraduate – Fourth Year
    5. Undergraduate - Fifth Year +
    6. College/university graduate
    7. Graduate/professional training

7. Expected graduation year

8. What is the highest level of education that your mother has obtained?
    1. Less than 7th grade
    2. Junior high school (8th -9th grades)
    3. High school (10th-11th grades)
    4. High school graduate
    5. Some college or specialized training
    6. College/university graduate
    7. Graduate/professional training

9. What is the highest level of education your father has obtained?
    1. Less than 7th grade
    2. Junior high school (8th -9th grades)
    3. High school (10th-11th grades)
    4. High school graduate
    5. Some college or specialized training
    6. College/university graduate
    7. Graduate/professional training

10. What is the highest level of education your spouse, partner, or significant other has obtained?
    1. Less than 7th grade
    2. Junior high school (8th -9th grades)
    3. High school (10th-11th grades)
    4. High school graduate
    5. Some college or specialized training
    6. College/university graduate
    7. Graduate/professional training

11. What generation best applies to you?
    1. I was born outside the U.S.
    2. I was born in the U.S.; My mother or father was born outside of the U.S.
    3. My parents and I were born in the U.S.; All grandparents born outside of the U.S.
    4. My parents and I were all born in the U.S.; At least one grandmother or grandfather was born outside of the U.S. with remainder born in the U.S.
    5. All my grandparents, both my parents, and I were born in the U.S.
    6. Don't know what generation best fits since I lack some information.

12. Has your mother abused alcohol or other illicit drugs?
    1. Yes
    2. No
    3. Don’t know

13. Has your father abused alcohol or other illicit drugs?
    1. Yes
    2. No
    3. Don't know

14. Have you ever used professional services provided by a psychologist?
    1. Yes
    2. No

15. What is your religious affiliation:
    1. Atheist/ agnostic/ none
    2. Christian (specify below, e.g., Baptist, Catholic):
    3. Jewish
    4. Muslim
    5. Other

16. What college or university do you attend?
    1. Spelman College
    2. Morehouse College
    3. Savannah State University
    4. Paine College
    5. Georgia State University
    6. University of Georgia
    7. Clark Atlanta University
    8. Other

17. Would you like to be contacted for participation in future studies if you qualify?
    1. Yes
    2. No