The Relationship between Africentric Coping Style and Psychological Well being in HIV-infected Women of African Descent living in the USA.

by

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Abstract

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The literature represents an alarming trend of HIV infection among African American women of child-bearing age. Evidence exists that there is a significant association between HIV diagnosis and psychological distress, treatment adherence and disease progression. Additionally evidence exists that coping strategies are influenced by culture. Therefore, it is the purpose of this study to investigate the association between a cultural specific Africentric coping style and psychological well being in women of African decent confronted with life stressors from living with HIV/AIDS.

Participants were 165 women of African descent, with a HIV seropositive status, recruited from the Washington DC metropolitan area, who completed a research packet that included The Perceived Stress Scale-10 item –PSS (Cohen, Kamarck, Mermelstein, 1983); The HIV/AIDS Stress Scale (Pakenham & Rinaldis, 2002); The Ways of Coping

Questionnaire –WCQ (Lazarus & Folkman. 1984); Africultural Coping Style Inventory-ACSI (Utsey, Adams, Bolden, 2000); The Mental Health Inventory –MHI (Veit & Ware, 1984); the Franklin Psychological Well being Index (Franklin, 1996); and a Personal Data Form.

Results of a hierarchical regression analysis established that for the current sample HIV disease related stress was positively associated with psychological distress and inversely associated with psychological well being. Furthermore, the findings revealed that culture specific coping had no relationship with psychological distress and Negative Self-esteem, and was marginally associated with Positive Self-esteem.

The results of the present study are similar to results reported in the literature that HIV-positive African American women, who have higher levels of stress, have less psychological well being. As with the present study the literature also shows that coping is negatively associated with psychological distress (Burns, Feaster, Mitrani, OW, & Szapocznik, 2008). Furthermore, cultural specific coping styles had a small effect on psychological well being. Implications for clinical practice and future research are discussed.

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DEDICATION

This project is in dedication to the millions of HIV-infected women of African descent who daily fight ‘the good fight’, your courage does not go unnoticed. And to my children, who are my inspiration to make a difference for the better.

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Chapter 1 - Introduction

Chronic physical illness is a primary health problem of Western countries, (Vilhjalmsson, 1998). According to the Center for Disease Control and Prevention, 90 million Americans live with chronic disease (CDC, 2004). Maes, Leventhal and DeRidder (1996) define chronic illness as an irreversible illness that one must live with for weeks, months or years. The U.S. National Center for Health Statistics (NCHS, 2005) places a duration criterion of three months or longer for a disease to be defined as a chronic illness. Chronic illnesses can progress over time affecting the person's body permanently, leading to death, or it can improve and go into remission. Chronic illnesses almost always affect the person's quality of life (Chronic Illness Alliance, CIA, 2004). The relationship between chronic physical illness and psychological distress, particularly depression, has been repeatedly documented in clinical and community studies (Neff & Husaini, 1980; Kathol and Petty, 1981; Aneshensel, Frerichs, & Huba, 1984; Hays, 1994). Disabling illness and injuries can create ongoing difficulties in different domains of life that include, but are not limited to finances, work and home (Vilhjalmsson, 1998). Furthermore, research has increasingly targeted serious life threatening illness as traumatic events, which has led to a growing literature on Posttraumatic Stress Disorder (PTSD) among medical patients with diagnoses that include but is not limited to, cancer, myocardial infarction, and Human Immunodeficiency Virus (HIV). Mundy and Baum (2004), state that the defining characteristic of a traumatic stressor or of psychological trauma is the presence of an implicit or explicit life threat. Individuals dealing with a

chronic illness diagnosis face many daily stressors, ranging from psychological, e.g. depression, financial difficulty, and an overall decrease in the quality of life.

There is a large body of research focusing on stress, coping, chronic illness and mental health, but little has been done looking specifically at a cultural specific coping style and its effects on resilience and mental health in a population experiencing chronic and life threatening illness. Cultural specific coping is a coping style that refers to a specific culture's way of adjusting to and managing stress; i.e. it is an expression of psychological well being strategies that are important to the specific cultures. Utsey, Adams, & Bolden (2000) for example, define African centered coping as a coping style where the effort is to maintain a sense of harmony and balance within the physical, metaphysical, collective/communal and spiritual, psychological realms of existence**.** The purpose of the current study is to further examine the influence of living with a chronic illness on global mental health and functioning. Furthermore the study will specifically focus on the role of cultural specific coping styles and the relationship between health-related stressors and psychological distress in a population of women living with a chronic illness.

Coping

Coping is often defined as cognitive and behavioral efforts made in response to threat, (Tamres, Janicki, & Helgeson, 2002). Lazarus and Folkman (1984) defined coping as thoughts and behaviors that people use to manage the internal and external demands of situations that are appraised as stressful. They go further to propose that coping choices are dependent on both the appraisal of the threat and the appraisal of one's resources. Coping is a process that unfolds in the context of a situation or condition that is appraised

as personally significant and as taxing or exceeding the individual's resources for coping (Folkman & Moskowitz, 2004). Folkman & Moskowitz (2004), describe the mechanism of coping as the process by which the individual initiate the process, in response to an appraisal that important goals have been harmed, lost, or threatened. The appraisal is characterized by negative emotions that are often intense. The coping response is therefore initiated in an environment that is highly emotional and often the first task is to down-regulate negative emotions that are stressful in and of themselves, and may be interfering with the ability to cope effectively. Folkman and Moskowitz (2004), explain that emotions continue to be integral to the coping process, throughout a stressful encounter, as an outcome to coping, a response to new information and as a result of reappraisals of the status of the encounter. If the encounter has a successful resolution, positive emotions will dominate; if the resolution is unclear, or unfavorable, negative emotions will dominate.

Grossman, Niemann, Schmidt, & Walach (2004), comment that coping with the symptoms, and disability that comes with having a chronic disease included with the uncertain perspectives of chronic disease is a harrowing challenge for a significant proportion of the population. Some individuals however, not only cope but thrive despite the adverse conditions that come with having a chronic illness. Many investigators research coping in an attempt to explain why some individuals fare better than others when encountering stress in their lives, (Folkman, & Moskowitz, 2004). Concepts such as culture, developmental history, or personality can also help explain these individual differences. However, the role of coping is thought to be more unique in that the cognitive, behavioral and affective aspects of coping can be utilized as both an

explanation of how individuals cope as well as a point of intervention (Folkman, & Moskowitz, 2004).

Coping and Culture

Existing measures of coping are for the most part, grounded in a European worldview and a conceptual framework that values the individual over the group, or independence over inter-dependence. Some scholars argue that the current coping measures tend to be Eurocentric and do not take into consideration differences of ethnic minority cultures (Nobles, 1989, Utsey, Adams, & Bolden, 2000). But even mainstream theorists like Lazarus and Folkman (1984), explain that the manner in which emotional reactions associated with coping are expressed hinges on the meaning and significance the culture gives to human transactions within the environment. An example of the influence culture has on coping behavior is seen in the research that focuses on African Americans and coping (Slavin, Rainer, McCreary, & Gowda, 1991; Jackson & Sears, 1992; Smyth & Hossein, 1996; Utsey, Adams, & Bolden, 2000; Utsey, Brown, & Bolden, 2004). Culture is defined as including thoughts, beliefs, practices, and behaviors of a group of people in the areas of history, religion, social organization, economic organization, political organization and collective production (Karenga, 1988, Sundberg, 1981, White, 1984). White (1984), states that a culture is a distinctive, coherent, persistent, psychological perspective, or frame of reference, that is evident in behavior, attitudes, feelings, life-styles, and expressive patterns. Johnson (2003), states that culture is the operationalizing of people's worldview. An example of how culture might influence coping behavior can be seen in the African American community. Daly, Jennings, Beckett, & Leashore (1995), report that when African Americans are confronted with stressful situations they

rely on group-derived ego strength, like family, community, and social support networks. African Americans also often employ metaphysical approaches to coping, like prayer and meditation, based on spiritual and or religious belief systems that represent an important aspect of the culture (Utsey, et al, 2000, Boyd-Franklin, Alemán, Jean-Giles, & Lewis, 1995, Boyd-Franklin, 2003).

Given the culturally specific coping styles used by African Americans and the disproportionate manner in which African Americans have been impacted by the Human Immuno- Deficiency Virus / Acquired Immuno-Deficiency Syndrome (HIV/AIDS) epidemic (Prado, Feaster, Schwartz, Pratt, Smith, & Szapocznik, 2004, CDC, 2004, Ball, Tannenbaum, Armistead, & Maguen, 2002), an opportunity exists to see the whether employing an Africentered coping style plays a role in the psychological well being of HIV positive Americans of African descent.

HIV and African Americans

The impact of the HIV has become increasingly viewed within the parameters of chronic illness. AIDS has been defined as, "A specific group of diseases or conditions which are indicative of severe immuno-supression related to infection with the HIV", (Center for Disease Control and Prevention, 1991). When AIDS first came to light in the 80's it was considered to be an immediate death sentence, but with the advent of new treatment, AIDS has gone from being defined as a terminal disease to a chronic disease.

AIDS has been responsible for the death of more than 20 million people since the first cases were diagnosed in 1981, (Center for Disease Control and Prevention, 2004). The CDC 2004 World AIDS-Day report that in 2003 alone, 2.9 million people died of AIDS. In the United States up to 950, 000 Americans are estimated to be HIV positive, with

40,000 being infected every year. African Americans account for 39 percent of estimated total AIDS cases diagnosed in the United States since the beginning of the pandemic through 2002, even though they only make up 12.7 percent of the population. Women of color and inner city women in general are at particular risk for HIV exposure because of the rate of infection among others with whom they are likely to be in sexual contact and because of the higher than average prevalence of injection drug users in the inner city (CDC, 1991). African American women account for 59 percent of total AIDS diagnoses among women. In 2001 HIV/AIDS was the leading cause of death among African-American women between the ages of 25-34, (CDC, 2004). The statistics therefore appear to indicate that the majority of women with HIV are in their childbearing years, (Campbell, 1999). In light of this trend the need exists to understand how the realities of this disease impact their psychological processes, coping strategies and adaptive outcomes. Due to the general public's tendency to attach notions of morality to a HIV+ diagnosis, the trauma of being HIV positive holds more than an existential crisis of having a life-threatening chronic disease. It also includes the stress associated with the experience of being stigmatized.

The literature further indicates that women of African descent at risk of becoming HIV positive face other risk factors as well, such as poverty, and being disenfranchised because of race and gender. Structural factors of gender, race, ethnicity, social class and economic status have been noted to be associated with who gets AIDS in the USA, (Zierler & Krieger, 1997). A report from the Panos Institute (1990) suggests that; "the identification of high levels of infection among Black and Latino communities is related to two factors; disadvantage and poverty." Singer (1994) writes, "In the US especially,

AIDS is disproportionately a disease of the dispossessed, a disease of the social condemned and denigrated, a disease of social outcasts and a disease of the poor"(pp.944). Women with AIDS have less access to medical care and as a result are often diagnosed late in the trajectory of the disease.

Chronic Illness, HIV and African American Woman

Although research on women and HIV/AIDS has increased in the past decade, there is still little focus on womens' lives and experiences with AIDS, especially women making a successful life for themselves. Until recently women of African descent were largely absent from the AIDS discourse and research. When they were included, they were often categorized and studied as problems, prostitutes, AIDS mothers, and drug addicts who transmit HIV to others. Rarely have women of African descent been seen as individuals who, although they have acquired AIDS infection, are also individuals who are quite successfully coping with a life-threatening illness, (Patton, 1994).

Therefore with HIV positive being seen as a chronic illness and with the disproportionate impact of HIV on women of African decent, this study will focus upon HIV positive women of African descent to determine the impact of cultural specific coping styles on their overall psychological well being.

Chapter 2 - Literature review

Chronic physical illness, generally defined as an irreversible illness that one must live with for weeks or more (Maes, Leventhal & DeRidder, 1996), is viewed as one of the primary health problems of Western countries (Vilhjalmsson, 1998). Another definition of what constitutes a chronic illness is offered by Muscari (1998), as a condition that affects daily functioning more than three months per year, cause hospitalization for one month per year, or require the use of adaptive devices, e.g. oxygen, assistant care at home, blood transfusions, and help with transportation. According to the CDC (2004), 90 million Americans live with chronic illnesses. Some of the most common causes of chronic illness and disability include arthritis, back pain problems, coronary disease, respiratory disease, hypertension, diabetes, cystic fibrosis, neural tube defects, sickle cell anemia, HIV infection and cerebral palsy. Given the number of chronic illnesses, it is therefore appropriate that some researchers focus on how individuals cope with living with a chronic illness.

There is an extensive body of literature exploring the relationship between chronic illness and a wide array of psychosocial variables. Within this body of work are studies that explore the experience of living with HIV within the parameters of living with a chronic illness.

A study by Vilhjalmsson (1998), focused on the relationship between chronic physical illness and depression. The researcher hypothesized that chronic physical illness would affect depression both directly and indirectly through ongoing strains/stressors on personal and social resources. The sample included 825 individuals ranging between 20 and 70 years of age. Of the sample 53% was female. A breakdown of race and ethnicity

is not reported. To assess for the presence of chronic physical illness, respondents were asked whether they had any of 30 physical conditions in the past 12 months. The list included illnesses such as allergies, cancer, heart disease, hypertension, gastric ulcer, liver disease, pneumonia, and rheumatism. Ongoing strain/stressor was assessed within three domains: home, work, and finances. Respondents indicated on a 5-point scale (0=never and 4=almost always), how often they experienced each strain/stressor. Summary scores were obtained by adding strain items within each domain. Social support was assessed by the support exchange questionnaire that measured the receivable (perceived) support from others. The study further considered the two personal resources of self-esteem and mastery, as previous research suggested that they were inversely related to depression in the general population. Self-esteem was measured by the Rosenberg 10-item inventory, and mastery was measured by a 7-item measure (Pearlin, et. al, 1981) that included items measuring the ability to solve problems, feeling pushed around, being able to control what happens in the future, and feeling helpless in dealing with problems. The depression subscale of the SCL-90-R symptom inventory measured depression. Results indicated that chronic physical conditions are associated with higher domestic and economic strains, lower social support, self-esteem and mastery, and higher depression. Further results pointed to a relationship between self-esteem and mastery and lower depression, and that social support is correlated with higher self-esteem and mastery and lower depression. The investigator concluded that physical chronic illness affects depression both directly and indirectly by aggravating strains and/or stress and undermining resources. Specifically, some of the indirect stressful effects of chronic physical conditions on depression are those that run through areas of domestic,

occupational and economic strains. Other areas that can be adversely affected by chronic physical illness are social support and personal resources. Furthermore, people with chronic conditions often experience economic difficulties because of a reduction in job involvement, work loss or health care costs. Vilhjalmsson (1998) further concludes that economic difficulties undermine social support, self-esteem and mastery, which are all important for the maintenance of psychological well being. This finding is supported by the literature and underscores the cyclical dilemma that those in economic difficulties and with chronic disease find themselves in. This is particularly significant to the present study given that the literature often reports women of African decent living with HIV, to be from a low social economic status. Low income has characterized the life experience of a large number of African American women. Lawson, Rodgers-Rose, & Rajaram (1999), state that African American women are the lowest paid among the four racial/gender groups, even controlling for full time work. They go further to show the relationship between economic status and mortality rates. Keeping in mind that women of African decent that are HIV infected often are characterized by low economic status, it therefore seems that women of African descent living with HIV do not only have to deal with the realities of living with a chronic illness that comes with a variety of stigma, they also often have to deal with stressors that are unrelated to their disease like housing, low income, and health care, all which impact their general well being. The stressors that HIV positive women of African descent deal with are therefore not only relegated to their disease status but to their general life status as well.

Stress

Stress is a construct that has been widely studied. Dougall and Baum (2001) state that there is little consensus among researchers as to the definition and measurement of stress. However, there does appear to be uniform agreement that stress affects the individual both physically as well as psychologically (Lazarus & Folkman, 1984). Stress can be adaptive and is associated with threatening or harmful events, and is usually characterized by aversive or unpleasant feelings and mood. Some describe stress as an emotion whereas others see stress as a general state of arousal associated with taking strong action or dealing with a strong stimulus. Others describe stress as a stimulus or a response, and yet others define stress as both stimulus and response (Dougall and Baum, 2001).

Biological theories of stress include the view that stressful events elicit negative emotions associated with the sympathetic nervous system activation that releases epinephrine and norepinepherine, which prepare the organism to respond to the danger posed by either fighting or fleeing. Psychological theories have focused on the response to stressors. Lazarus (1966), emphasized the contribution of the individual to the interaction with an environmental stressor. He proposed that people actively perceive and react to stressors and that there was considerable individual variation in this experience. In other words the occurrence of an event alone is not sufficient to induce stress; and with their seminal work in 1984 Lazarus and Folkman introduced the notion of appraisal or cognitive interpretation of the stressor. In this model of stress, for stress to be experienced as negative, it is necessary for an individual to appraise the event as threatening or harmful. Stress appraisal then elicits negative emotions, but unlike other

models, in this model it was the appraisal of the event not the event itself or the emotional reaction that determined subsequent psychological and behavioral responses. Additional appraisal processes are then used by the individual to determine what available coping strategies could be used to deal with the situation. Stress is encountered daily, from making it to work on time, paying bills, and interpersonal relations; but stress is also found in unusual situations that do not occur daily, such as divorce, the death of a loved one, and being diagnosed with an illness. Dougall and Baum (2001), argue that not all exposures to stress are equal and it can be assumed that frequent exposure to significant stressors might have a more negative impact on an individual than infrequent exposure to less severe stressors. An individual who has been diagnosed with a chronic illness is therefore exposed to the long term effects of stress, which has been implicated in the onset and progression of disease. In fact one of the most salient mechanisms through which stress can make an individual more vulnerable to disease is the link between stress and immune functioning. The literature reports that chronic stress results in a decrease in immune functioning (Hand, Phillips, Dudgeon, & Skelton, 2005; Sergerstrom & Miller, 2004; Dougall & Baum, 2001), which therefore affect the individual's ability to fight off disease. This is particularly important when dealing with a patient population that has a suppressed immune system making them more vulnerable to not only the effects of stress but also opportunistic infections.

Stress and Chronic Illness

When looking at stress and chronic illness, the literature reports an increase in stress levels with the diagnosis and living with a chronic illness. For example, Ginsburg, Solomon, & Bleich (2002), examined the association between repressive coping style,

Acute Stress Disorder (ASD) and Posttraumatic Stress Disorder (PTSD) after Myocardial Infarction (MI). 116 MI patients and 72 matched control subjects were assessed twice over a period of 7 months. The first assessment was done during their hospitalization and the second assessment was done 7 months later. Assessments included a demographic information sheet, clinical measures of the severity of the MI taken from hospital records, perceived severity of the MI, the Stanford Acute Stress Reaction Questionnaire, PTSD Inventory, and the Repressive Coping Scale. Results indicated that the degree of life threat during a myocardial infarct (MI) predicted the severity of acute stress disorder. Further findings suggested that repressive coping style might promote adjustment to traumatic stress, both in the short term and longer term.

White, Richter, & Fry (1992), investigated the effects of stressors, coping strategies, and perceived social support on the psychological adaptation of 185 female patients with Diabetes Mellitus. Subjects were given a battery of scales that measured stressful life events, health, coping strategies, and social support. Results indicated that stressful life events, health status, coping, and perceived social support had a direct effect on psychosocial adaptation, and accounted for 56% of the variance. Further results point to the buffering effect of social support - the greater the perceived social support, the better the psychosocial adjustment to the illness.

The idea of coping goes hand in hand with stress. But what do we mean by stress, a term so commonly used in the vernacular that it has almost lost its meaning? Definitions and conceptualizations of stress have essentially centered around three predominant perspectives, namely: stress as a stimulus, e.g. the event of getting divorced; stress as a response, e.g. the thoughts, behaviors and feelings that occur around a divorce;

and finally stress as an interaction between the person and the environment, e.g. the personal response to a divorce as influenced by various aspects of the individual's social situation and thought processes. Stress can result, either from too much change or too little change (Lazarus & Folkman, 1984). Avsion and Gotlib (1994), propose three mediators to stress, namely social support, psychological resources and coping resources. These alter the effects of stressors on illness or dysfunction. Research has demonstrated that self-efficacy and self-esteem are especially important resources that have important effects on the ways in which stressors manifest themselves as distress or disorder. Self-efficacy is described as including locus of control, mastery, helplessness and fatalism, all which have a significant effect on individual mental health. Self-esteem benefits positive mental health (Avison & Gotlib, 1994).

Stressors can be divided into two general classes: life events and chronic strains (Pearlin, 1989; McLean & Link, 1994). Life events can include recent stressors (within the past year), as well as remote stressors. Life events are described as experiences that lead to life change, that require some type of readjustment or behavioral change. McLean and Link (1994), go further to explain that life events consist of recent experiences that are likely to arouse strong emotions, regardless of the specific emotion produced. Life events can be both positive and negative for adjustment to be needed, although research indicates that only negative life events have the potential to lead to psychopathology outcomes. Brown & Harris (1978), lists eight categories of life events that involve change in an activity, a role, life circumstances or an idea. These include: changes in a role of the respondent; changes in the role of close relatives of the respondent; major changes in the health of the respondent; major change in health for close relatives of the

respondent; forecast of change; residence change; valued goal fulfillments or disappointments; other dramatic events involving the respondent or close relatives. The concept of life stress and its effects on the onset of disease was first addressed by Rahe, Meyer, Smith, Kjaer, and Thomas (1964), in a seminal study that examined the proposition that many diseases have their onset in an environment of mounting social stress. *The Social Readjustment Rating Scale*, later re-named *The Schedule of Recent Events*, was developed by Homes, and Rahe (1967), to measure and concretize the concept of life stress. Homes and Rahe (1967) found that a common theme to all the identified life events was that they evoked some adaptive or coping behavior on the part of the individual involved.

Chronic stressors are less self-limiting in nature than the typical life event. A life event almost by definition will end, but chronic stressors are typically open-ended using our resources in coping without promising resolution. Traumatic stressors are past events and the impact of the ongoing sequelae of these events continues to have an effect (Martinez et al. 2002).

A further distinction is that medical stressors also contain future-oriented aspects in contrast to traditional traumas, which are primarily past-oriented. Cancer, HIV disease and other chronic life threatening diseases are characterized by often drawn out periods of treatment. If the focus of life is not based on a past event for medical patients, but is based on the future, the intrusions and re-experiencing symptoms that occur as part of posttraumatic stress syndromes may be of a different type than those experienced by individuals exposed to traditional traumas.

The defining characteristic of a traumatic stressor or of psychological trauma is the presence of an implicit or explicit life-threat and reactions that are extreme and generally negative (Mundy & Baum, 2004). Many medical stressors share characteristics with traumatic stressors. Medical diagnoses and events have resulted in extreme fear, helplessness or horror. The Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV), has changed criteria for PTSD to require experience in response to the stressor must include intense fear, helplessness or horror. This definition expands the type of traumatic events that qualify for PTSD to include violent personal assault, motor vehicle accidents, natural or man-made disasters, learning about the sudden unexpected death of a family member or a close friend, learning that one's child has a life threatening disease or being diagnosed with a life threatening disease. Research has increasingly targeted serious or life-threatening illnesses as traumatic events and as evidenced by a growing literature on PTSD in response to a serious medical diagnosis, as mentioned before e.g. cancer, myocardial infarct and HIV diagnosis (Mundy & Baum, 2004). Important to remember is that the experience of the stressor is contingent upon the person's appraisal of the stressor, i.e. how stress is perceived and appraised by the individual.

HIV/AIDS as a Chronic Disease

The nature of HIV/AIDS has changed considerably since it was first diagnosed in the early eighties. In the beginning of the epidemic, an HIV diagnosis involved a very bleak prognosis. Individuals typically endured a steady decline in health until they eventually died. Today however, contemporary medical treatments extend life, creating other complex circumstances of living with chronic illness. The new treatments that include

Highly Active Antiretrovirals (HAART), brings with it not only a prolonging of life but complications that involve side effects of the treatments, including fatigue and nausea, as well as treatment adherence issues such as when medication needs to be taken, how medication needs to be taken, with or without food, and where medication needs to be taken, and the need for refrigeration with many of these drugs.. The treatments often place many constraints on the individual that affect their daily living. These practical constraints often lead to individuals feeling tied down, and subsequently takes its toll on the individual's emotional state.

Initial studies regarding the effects of HIV on mental health tended to be problem-focused. Areas of study typically included depression, anxiety, stress and grief (Folkman, Chesney, Collette, Boccellari, & Cooke, 1996). As mentioned before, in the U.S. significant advances in antiretroviral therapies and clinical care are reducing morbidity and mortality in persons living with HIV disease. As AIDS becomes a chronic but increasingly manageable illness, it is important to develop empirically validated models that enable health science practitioners to understand and improve life satisfaction in persons living with HIV (Heckman, 2003). Mosack (2001), reports a change in orientation that has occurred since the drug therapy successes. Now more research is focusing their efforts on coping and adjusting to a positive serostatus, including coping and psychological well being, as well as life satisfaction.

HIV infection has been associated with a broad range of mental heath problems, including not only what could be regarded as understandable emotional reactions to a potentially fatal illness, but also psychiatric disorders such as major depression, and neuro-psychiatric syndromes, e.g., HIV-associated dementia (Catalán, 1999). It is

important to remember that psychiatric disorders in the HIV population is not that different from what can be found in the general population, and include the above as well as anxiety disorders, personality disorders, psychoses, sexual dysfunction, and substance abuse, to name a few (Petrushkin, Boardman, Ovuga, 2005; Kalichman, 2004). What makes individuals with a seropositive status more vulnerable is that they are carriers of a disease that is physically debilitating and holds considerable social stigma.

An additional consideration when looking at HIV is therefore the role of social stigma and accompanying discrimination (Heckman, 2003). HIV infected persons encounter many physical, economic and cultural barriers that hinder their access critical health care and social services. This is critical when taking into account that HIV-infected persons who experience more physical compromise may also be less able to access resources that can assist their coping with the disease (Lazarus & Folkman, 1984). Poor physical well being can affect the life quality of HIV infected persons.

Stress associated with HIV/AIDS

Lazarus & Folkman (1984), suggest that coping processes are better understood when looking at how people cope with specific stressors rather than treating coping as a personality trait. For HIV disease-related stressors include not only treatment, symptoms, side effects, fatality, and other physical features, but also social concerns, such as stigma, impoverishment, relational implications of getting and passing on the infection. Jenkins and Guarnaccia (2003), propose a stressor-specific approach, especially when studying coping with health problems for example, HIV disease related stress.

Being diagnosed with HIV is also life threatening and matches other medical illnesses and conditions because of its chronic course and other stressful experiences that

can occur as part of the disease, treatment, or context. Kelly, Raphael, Judd, Perdices, Kernutt, Burnett, Dunne, & Burrows (1998), interviewed 61 homosexual and bisexual men, between the ages of 18-65 years, who had been diagnosed with HIV on average four years earlier for the presence of current or past PTSD related to the HIV diagnosis. Assessments included the Diagnostic Interview Schedule-Version III-R. HIV status and the measures of disease factors were assessed using the Classification System for HTLV-III/LAV (Human T-cell lymphotropic virus type III/Lymphadenopathy associated virus) (CDC, 1987). Participants were asked to indicate physical symptoms of HIV, producing a total physical symptom score. Other measures included the Eysenck Personality Inventory- Neuroticism, a measure of neuroticism used to measure for trait anxiety; the Defense Style Questionnaire in its short form; the Locus of Behavior which measures personality vulnerability on a dimension of internal and external locus of control. Psychiatric History was asked in a self-report format, and the Life Events Inventory measure recording adverse life experiences in the preceding 4 months. Results indicated that 30% of HIV positive men met criteria for current or past HIV related PTSD. The study found that the majority of PTSD-HIV arose 6 months after HIV diagnosis. These studies indicate the psychiatric vulnerability that accompanies an HIV diagnosis. Leserman, Jackson, Petitto, Golden, Silva, Perkins, Cai, Folds, & Evans (1999), examined the effects of stress, depressive symptoms, and social support on the progression of HIV infection. The study was a longitudinal repeated measures design that followed the same cohort over a 5.5 year period. Every 6 months subjects underwent a systematic medical, neurological, neuropsychological and psychiatric assessment. Social support was assessed yearly. Measures included for depression, a structured

psychiatric interview that was modified from the Structured Clinical Interview for DSM-III-R. Stressful life events were measured with the Modified Psychiatric Research Interview, with norms for each stress based on the degree of threat that most people would experience given a particular circumstance. Social Support was measured with the Sarason Brief Social Support Questionnaire. The sample consisted of 82 gay men with an average age of 30.3 years. Seventy-nine percent were white and all but 1 of the non-white sample was African American. Results indicated that faster progression to AIDS was associated with more stressful life events, more cumulative depressive symptoms and less cumulative social support. When all three variables were analyzed together, stress and social support remained significant in the model. The risk of AIDS doubled with the increase of one severe stressor and two moderate stressors. Leserman et al. (1999), is among the first long-term prospective studies to provide preliminary evidence that the cumulative experience of stressful events and difficulties and social support may have a measurable impact on disease progression in HIV-infected men. Keeping in mind the impact stress has on disease progression, Greenblatt and Hessol (2001), report that women who are HIV infected tend to have a lower income, come from ethnic minority groups, have used injection drugs or cocaine, or have a sexual partner who used injection drugs or cocaine, which are all risk factors for poor health in general, (pp.20).

HIV/AIDS Stress in Women

Investigating the stress associated with HIV/AIDS in women is an important area of research, when taken into consideration that the incidence of HIV infection among women in the United States has increased significantly over the last decade. Nationally AIDS is the third leading cause of death among young women between the ages of 25-44

(Ickovics, Thayaparan, Ethier, 2001). Women diagnosed with HIV deal with more stigma, a greater decline in quality of life and greater incidence of psychopathology than their male counterparts (Feist-Price, Wright, 2003).

The literature reports that the two main routes of transmission for women are through sharing needles by injecting drug users, and heterosexual sex. In 1993 the World Health Organization (WHO) reported that women are more likely than men to be infected with HIV through heterosexual sex, a report that still holds true today. The report went further to state that there were three reasons for this phenomenon: biology, epidemiology and the socio-cultural context that women find themselves in. First biology: the physiology of women is such that it makes them more vulnerable to HIV infection. The mucosal wall of the vagina is fragile and prone to injury. This particular physical structure coupled with the HIV virus found in seminal fluid and sperm cells pose a great risk to women given that it can be a pathway for entrance of antibodies into the woman's bloodstream. Secondly, according to epidemiological statistics, more men are infected with HIV, making it more of a risk for a woman to have heterosexual sex with an infected man, than vice versa. The last reason in the WHO report points to cultures where women are expected to be socially and sexually subordinate to men, greatly limiting their power to protect themselves from sexual exploitation by HIV infected men. Furthermore, Hearn and Jackson (1997), state that in the U. S. the remnants of slavery continue to influence sexual relationships between African American men and women. Greene (1994), go on to argue that many African American women are socialized to surrender to the man's sexual needs, and African American men may expect these sacrifices as a testament of a woman's love and support of their manhood because they continue to struggle to

maintain a sense of their own manhood in a racist society. Goldstein and Manlowe (1997), pointed out that the responsible African American female lover would never demand accommodation of her partner to use a condom that might inhibit or decrease her partner's sexual enjoyment. Therefore it is possible that cultural practices of African American women support risk taking over prevention behavior.

Minority women are especially vulnerable to HIV-infection, with African American and Hispanic women taken together, accounting for almost two thirds (63%), of all women with HIV, (CDC, 2001). As most of these reported cases occur in low socio-economic status women, issues of racism, sexism and poverty may compound the psychological distress associated with HIV. Therefore an important area of investigation would be the psychological well being and psychological distress of women that are HIV infected. This area of study is made all the more important when keeping in mind that the literature repeatedly indicate that higher levels of psychological distress have an adverse influence on quality of life, which in turn have been linked to poor treatment adherence, (Heckman, 2003). Catz, Gore-Felton, & McClure (2002), surveyed a 100 low-income women: 87% had an average annual income of less than $10, 000, 11% had an average annual income of between $10, 000 - $20, 000, and 2% had an average annual income of between $20, 000 - $30, 000, indicating that the majority of the women live below the poverty line. The sample consisted of 84% African American, 15% White, and 1% Hispanic. All participants received HIV care at a public hospital in the Southeastern United States. The primary purpose of the study was to evaluate psychological distress in minority low-income women living with HIV and AIDS. To assess for psychological distress, researchers measured for depression, anxiety, life stress, social support, coping,

time of HIV diagnosis, CD4 counts, and demographic characteristics. Respondents provided information about their age, ethnic background, level of education, annual income, current relationships and probable modes of HIV infection. Depression was measured using the Center for Epidemiological Studies' Depression Scale, which taps into cognitive, affective, and somatic aspects of depression. Symptom frequency is scored on a 4-point Likert-type scale with scores ranging from 0 to 60. Anxiety was measured using the State form of the State-Trait Anxiety inventory that assesses current anxiety. Scores on this scale range form 20 to 8, with higher scores indicative of the presence of more anxiety. The Social Readjustment Rating Scale measured life stress. Respondents used a 43-item major life event checklist, which included items such as death of a spouse and/or change in living conditions, to indicate which stressors they have encountered in their life over the past 6 months. Social support was evaluated using the Support Evaluation List (ISEL), a 40-item questionnaire that yields an aggregate social support score. Higher ISEL scores indicate greater perceived social support. Coping was assessed using the Ways of Coping Questionnaire (WOC). Participants are asked to indicate how often they used each of 66 coping strategies to cope with HIV status. Catz et al. (2002), used two subscales: planful problem solving, and escape avoidance problem solving. Time since HIV diagnosis was converted into months since diagnosis and CD4 counts were obtained from patients' medical charts, with a lower CD4 count reflective of more advanced stage of disease progression. Of the sample 62% were single, 17% were divorced, 10% married, 3% widowed, and 8% reported other. The average age of the sample was 30.8 years, and average level of education was 11.9 years. On average women reported being diagnosed with HIV for 20 months, with the average

CD4 count being 445, and the range being 2-1554. More than half the sample reported significant symptoms of depression, with 20% having scores indicative of probable depression. The mean anxiety score was higher than that reported for women in the general population. Results further indicate that greater escape avoidance coping, less social support, less planful problem solving, and more life stressors, all contributed independently to elevated levels of depression. Medical factors and psychosocial factors were also significantly associated with anxiety, but medical and education factors were not significantly associated with depression. Shorter time since diagnosis was associated with greater anxiety. On average, participants experienced 7 major life events within the past 6 months. The investigators postulate that it would be tempting to conclude that the emotional distress experienced by the sample reflected factors beyond HIV diagnosis, and more a reflection of their poverty and associated burdens. The higher depression and anxiety levels reported by this study are of concern as distressed women may have poorer health outcomes. It is therefore important for researchers to continue to investigate the emotional needs of this population, especially since infection rates and incidence of AIDS is on the rise in women.

HIV stress and women of African Descent

As reported earlier, HIV is impacting women of African descent at alarming rates. African American women and Latinos as well as women from lower socio-economic backgrounds are disproportionately represented among women with AIDS (Ickovics, Beren, Grigorenko, Morrill, Druley, &Rodin, 2002). Stampley, Mallory, & Gabrielson (2005), report that women of African descent in the US are 10-15 times more likely than their White counterparts to become infected, and 9 times more like to die from HIV

infection than their White counterparts. McNair and Prather (2004), put forth that some of the reasons for the alarming rates of infection among African American women include the sex-ratio imbalance in the African American community, which in turn gives rise to the low condom usage rates, high rates of HIV infected African American men, and risky behavior. The researcher explains that because of the sex-ratio imbalance and gender role socialization women have difficulty discussing condom use with male sexual partners for fear of alienating these partners, (Stampley, et. al., 2005; Sanchez, Kiefer, & Ybarra, 2006; Corneille, et. al., 2008). Women therefore have less interpersonal power in relationships because men have more partner options available to them. Lower rates of interpersonal power interfere with women's ability to initiate discussions around condom use, leading to lower rates of condom use, and greater vulnerability to HIV infection. Corneille, et. al. (2008), found that older women compared to younger women, held stronger beliefs that males had more influence in determining condom use and that older women also held more negative attitudes towards condoms. For many women AIDS is a gay White man's disease and they view monogamy as protection against infection. In a study done with a middle aged African American female sample, Stampley, et. al. (2005), found that African American women in midlife had little knowledge about HIV or AIDS, and that most of the women relied primarily on monogamous relationships for protection, even when they were at high risk of infection.

Feist-Price and Wright (2003), report that African American women diagnosed with HIV report more emotional distress and psychiatric symptoms than African American men diagnosed with HIV. They go on to say that African American women

who contracted the disease from intravenous drug use report more psychiatric disorders than African American women who contracted the disease from heterosexual sex.

Durr (2005) writes that for many HIV positive African American women, the virus is not central to their lives, because they often find themselves in communities where poor health is common and a seemingly terminal illness is just the order of the day. These women often deal with daily living stressors of unemployment, dealing with drug recovery issues, and violence in their communities. Shambley-Ebron and Boyle (2006), argue that African American women carry multiple family stressors, including caring for children, and that being HIV positive adds the burden of stigma the disease brings. An important note though is that these burdens add to burden of gender and race that these women already carry. These burdens place African American women at an increased health risk, perpetuating the cycle of morbidity and mortality. Ingram and Hutchinson (2000) found that HIV positive African American mothers often put the needs of other family members before that of their own. They found that society often frowned upon these women for having children and that this disapproval brought significant distress to African American mothers who were seropositive. These mothers often practiced what Ingram and Huthcinson (2000), call "defensive mothering". Defensive mothering included preventing the spread of HIV and preparing their children to be motherless. Shambley-Ebron and Boyle (2006), found that the overarching cultural theme for the HIV positive African American mothers in their study was to create a life of meaning.

Over the past two decades there has been a substantial amount of research devoted to understanding the role of coping in disease etiology, management of health risk, adaptation to disease and disease outcomes (Manne, 2003).

An Overview of Coping

The study of peoples' responses to stressful and upsetting situations has generated a vast literature. Research on the concept of defense extends back to the 19th century. A great deal of Freud's early psychoanalytic writings focused on outlining the various psychological maneuvers used by individuals to fend off, distort, or disguise unacceptable feelings, (Parker & Endler, 1996). Early thinking about coping and its measurement was based on a psychoanalytic ego-psychology approach. In the 1960's a new line of research began to emerge under the label of coping. A number of researchers began to label adaptive defense mechanisms as coping activities. The psychoanalytic ego-psychology perspective on coping included defense strategies. Styles were arranged hierarchically from healthy to progressively unhealthy or dysfunctional. Healthy styles were termed coping, and unhealthy or dysfunctional styles were called defensive with examples being neurotic and psychotic. Certain forms of coping were considered to be healthy and others pathological, but predetermining which styles are healthy and which styles are not does not take into account the context and outcome. Lazarus (1992), argued that this earlier coping theory did not allow for an in-depth study of how the person coped in thought and action. But the initial work on adaptive defenses led to an independent interest in the study of conscious strategies used by individuals encountering stressful or upsetting situations, (Parker, & Endler, 1996). Two coping dimensions in particular were identified by researchers early on and have continued to attract much of the research attention, namely, emotion-focused coping and problem-focused coping.

The late 70's saw a new approach to coping. The transactional, contextual and process centered approaches to coping were stimulated by process relational theories of

stress and emotion, which itself grew out of the larger cognitive movement in psychology, (Lazarus, 1992). The seminal work of Utsey, Adams and Bolden (2000), brought the importance of taking culture into account when considering coping. This view of coping takes into account the fact that the individual is embedded in a cultural milieu that impacts every step in the coping process, from the appraisal of the stressor to the outcome of the coping style used. What follows is an overview of the major theories of coping in the literature.

Coping Theories

Research on stress and coping exploded with Lazarus and Folkman's stress and coping theory. According to Lazarus, coping refers to cognitive and behavioral efforts to manage disruptive events that tax the person's ability to adjust. The contextual approach to coping that guides much of coping research states explicitly that coping processes are not inherently good or bad, (Lazarus, & Folkman, 1984). Lazarus and Folkman further proposed that coping responses are a dynamic series of transactions between the individual and the environment. The purpose of these transactions is to regulate internal states of the person and/or alter the person-environment relations. Lazarus and Folkman (1984), conceptualize coping as constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person. In their framework coping includes both direct efforts to alter demands perceived as taxing one's resources, also known as problem-focused coping, and attempts to regulate emotions surrounding the stressful encounter, also known as emotion-focused coping.

With problem-focused coping the individual's energies are directed towards managing and/or regulating the stressful event, whereas with emotional-focused coping the focus is on regulating one's emotional response to the stressor, (Utsey, et al., 2000). Problem-focused coping includes strategies such as defining the problem, generating and weighing alternative solutions, and following a plan of action. Emotion-focused coping includes processes such as avoidance, denial, seeking emotional support, and positive reappraisal (Stanton, Parsa, & Austenfeld, 2002). Lazarus and Folkman's theory on stress and coping postulates that stressful emotions and coping are due to cognitions associated with the way a person appraises or perceives his or her relationship with the world. The coping process has several components: the appraisal of the harm or loss posed by the stressor; and the appraisal of the controllability of the stressor. The person's evaluation of the outcome of their coping efforts and expectations for their future success in coping with stressors are both important determinants.

Coping need not be a completed successful behavioral act but an effort has to be made. The effort does not have to be expressed in observable behavior but can be directed to cognition as well. A cognitive appraisal of the stressful situation is a prerequisite of initiating coping attempts. .

Coping Research

A significant aspect of coping research is the attempt to identify varying approaches to coping. Much of this work has focused on factor analytical studies designed to explicate the structure of coping.

Several investigators have identified problem-focused coping as an effective coping strategy. However meaning-focused coping, a type of coping in which cognitive

strategies are used to manage the meaning of a situation, has also been noted to be effective (Pearlin & Schooler, 1978, Park & Folkman, 1997). Park and Folkman (1997), proposed a meaning-making factor as a useful way to think about efforts in which the person draws on values, beliefs and goals to modify the meaning of a stressful transaction. This can especially be a useful strategy in cases of chronic stress that may not be amenable to problem-focused efforts. Gottlieb and Gignac (1996), explain that meaning-making coping includes making causal attributions as to why the stressor has occurred, and searching for meaning in adversity. In addition they found that meaning-making coping was the most frequently reported way of coping in a study of caregivers of demented patients. Zautra, Sheets, & Sandler (1996), compared several empirical structures of coping, and came up with a four-factor solution that reflected the familiar pattern of problem-focused, emotion-focused, social coping and meaning-focused coping that provided an adequate fit for the data. The four factors include active coping, avoidance coping, support and positive cognitive restructuring. Active coping included behavior such as active planning and restraint: avoidance included denial, drugs and mental disengagement; support included seeking instrumental and or emotional support; and positive cognitive restructuring included a positive reinterpretation of the situation, humor and acceptance.

Billings and Moos (1981), proposed a three-factor conceptualization of coping consisting of active cognitive, active behavioral, and avoidance coping. Active cognitive and active behavioral both fall under the rubric of problem focused coping, with active coping including trying to see the positive side of things and considering alternatives; and active behavioral including talking to a friend or trying to find out more about the

situation. Avoidance can be classified as emotion-focused coping and includes for instance, eating more to reduce tension or busying self with other things in order to forget about the problem.

It is important for investigators to keep in mind that the adaptive qualities of the coping process are highly contextualized (Folkman & Lazarus, 1984). A given coping process may be effective in one situation but not in another. For instance, distancing is often adaptive when nothing can be done, such as when waiting for the outcome of a test. Distancing in this instance would include recognition of the problem but deliberately making efforts to put it out of your mind. A less successful coping strategy in this situation would be that of escape avoidance, where the individual employs an escapist flight that could for example include behaviors such as drinking or taking drugs. Further it is important to remember that the context itself is dynamic, so that what might be considered effective coping at the outset of a stressful situation may be deemed ineffective later, (Folkman, & Moskowitz, 2004).

To date emphasis has been given to the negative emotions in the stress process. However new research about the role of positive emotions in the stress process and the role of coping in generating and sustaining the emotions has been prompted by recent evidence that positive and negative emotions co-occur throughout the stress process, (Folkman & Moskowitz, 2004). Folkman and Moskowitz (2004), go further to say that they have found that coping is strongly associated with the regulation of emotion, especially distress throughout the stress process. The challenge however for coping researchers is to find a common nomenclature for diverse coping strategies, so that findings across studies can be discussed meaningfully.

When we measure coping with standardized instruments, we imply that people coping with adversity can be characterized by some preferred ways, and that they continue to apply the same strategies over time. This disposition to respond in a certain way by implication helps to reduce the complexity of evaluation and decision making in coping, although at a high price. It does not take into consideration that uniqueness of situation-specific coping responses represent a substantial aspect of the coping response (Schwarzer, & Schwarzer, 1996). It is important to remember that coping strategies are dynamic in nature, i.e. what works in one situation might not work in another. The context of the stressor is important, for example someone that is waiting on an HIV test result and then has to cope with being informed of their HIV positive status, may find that strategies which were adaptive in waiting to hear, may not be as be as adaptive as learning to accept their status. A completely different approach might be needed for both, and measurement at each point may give a different result. Notwithstanding some of the difficulties experienced in the coping research arena, this area of work has produced some compelling results. To summarize, Lazarus (1993), suggests that coping is a process and has the following principles and premises: coping strategies include thoughts and behavior; the judgment of whether the process of coping is effective or non-effective should be left to the person doing the coping; an individual's coping choices depend on the context. People have two major ways of coping with stressful events; problem-focused coping, which has an external emphasis, and emotion-focused coping, which has an internal emphasis.

Based on this model, researchers have speculated that problem-focused coping is more beneficial in changeable situations and emotion-focused coping is more beneficial

in unchange-able situations, (Shaw, Patterson, Semple, Grant, Yu, Zhang,et, al.,1997). In Western societies a tendency exists to view problem-focused coping as a more effective strategy. This could be because problem-focused coping highlights the individual's ability to deal with the problem and the individual's 'strengths' in dealing with the problem. Lazarus (1993), stresses that an individual's evaluation of stressful encounters is influenced by social, cultural, political, and historical conditions. Moreover, Lazarus identifies reliance on questionnaires that do not assess the "whole" individual as a major limitation in the assessment of coping. Aldwin (1994) adds that social and cultural factors can directly and indirectly influence an individual's appraisal of stress and shape the individual's response to stress by influencing the choices and options of their coping strategies.

Coping and Culture

Although there are broad general psychologies that can be applied to all people, there are also group differences, which have a tendency to be under-appreciated within the tradition that states, 'we are all the same'. One of the paradigms for dealing with diversity in psychology, as suggested by Watts (1994), is the need for population-specific psychologies to understand a single population. In other words, each diverse population needs to be seen within the context of what constitutes that population's socio-political historical context. Constantine, , Donnelly, Myers (2002), suggest that because cultural differences influence and shape a person's coping strategies, health care providers need to understand that coping strategies cannot be labeled as effective or non-effective without considering an individual's contextual circumstances, such as culture.

Culture has been defined across a range of domains within the literature. Keesing (1981), defines culture as a system of shared ideas, concepts, rules and meanings that underlie and are expressed in ways that humans live. Helman (1990) defines culture as a set of guidelines that is passed on from generation to generation by means of symbols, language, art, rituals, and social practices. These guidelines are the cultural lens through which individuals see the world and learn how to live in it. Not only do these guidelines provide a moral and ethical lens through which individuals understand the social world, but they are also aimed at maintaining social harmony and unification within societies, (Donnelly, 2002). Thus Dyck, & Kearns (1995), argue people's lives must be seen in their particular cultural, social, political, economical, and historical context. Keeping the above arguments in mind, it is therefore imperative that when assessing coping, that the cultural, political, socio-economic and historical contexts be taken into account in order to get an accurate portrayal of the coping behavior. Although, as seen in the theoretical overview of coping section, most models of coping view the individual as embedded in a social context, but the literature on coping however, tends to be dominated by individualistic approaches, (Lazarus & Folkman 1984, Pearlin & Schooler, 1978, Aldwin, 1994). Yet a growing body of literature has started to emphasize and examine the influence of culture on coping and resilience (Constantine, Donnelly, & Myers, 2002; Utsey, et. al., 2000; Boyd-Franklin, Alemán, Jean-Gilles, & Lewis, 1995; Daly, Jennings, Beckett, & Leashore, 1995). The current study therefore has adopted an African centered perspective in which to investigate coping strategies in a sample of HIV+ American woman of African descent.

African-centered coping

The literature indicates an Africentric coping style, to be reflective of an Africentric worldview. Because worldview is a belief system or 'lens' through which experience is filtered and partly determines individuals' reaction to their environment, it follows that worldview could influence the cognitive appraisals that individuals make, (Fine, Schwebel & Myers, 1985). An African centered approach to the world reflect the values, attitudes, and customs originating out of an African philosophical framework and is necessary for understanding the behavior of people of African descent. The importance of understanding the African worldview with regard to coping behaviors of people of African descent is underscored by the premise that coping occurs in a cultural context.

Although African-Americans may display problem-focused coping, emotional focused coping, active and avoiding coping, that are individualistic in nature, in some situations the full repertoire of culturally specific coping behaviors characteristic of this population is not adequately represented by the conventional (i.e. Western-Eurocentric) paradigm. Current Euro-ethnocentric conceptualizations of stress and coping do not consider the unique life situations, experiences and history of African Americans, and therefore most current instruments used to assess coping behavior fail to capture the culture-specific coping strategies characteristic of African Americans, (Utsey, Adams & Bolden, 2000).

The idea of an African Coping style comes out of the growing body of work on African centered psychology. Africans, particularly African American social scientists in Western society, have begun to recognize the existence of fundamental differences in

social realities between Africans and Europeans (Johnson, 2003). Kambon (1992), noted that different social realities reflect their (*African and European*) different racial-cultural histories. Thus "the emerging African psychology is an attempt to build a conceptual model that organizes, explains, and leads to understanding the psychosocial behavior of African Americans based on summary dimensions of an African American worldview", (White and Parham, 1990, pp. 23).

African psychology is a perspective that sees all humans as fundamentally spiritual and not viewed in gradations of worth and value that characterize racism, sexism, materialism, classism and all other "isms" that diminish the person and human spirit (Akbar, 2004). African psychology rejects Cartesian duality that views the mind and body as functioning separately without interchange, and accepts man as a divine spiritual being. Black behavior is understood by Black people as extensions of a spiritual core, sometimes referred to as the "soul".

White and Parham (1990), suggest that the ancient (African) psychology is a collective sense of consciousness that connects African Americans to other African people no matter where they are in the world, and represents a worldview that is common among those of African descent. Cokely (2003), states that as with European centered psychology, which has close ties to European centered philosophy, African centered psychology also has close links with African centered philosophy, "The worldview paradigm is considered to be foundational for understanding Africentric Psychology", (p. 145).

If one follows the history of Black people from West African societies through the American slavery experience, one finds the spiritual and religious orientation of the

African is evident as a thread of continuity (Akbar, 2004). Nobles (1980), has suggested that because of the African ancestry of African Americans, remnants of an African worldview still exist among them and this worldview has aided African Americans in adapting to life and coping with their unique experiences in the United States.

An African centered philosophy holds that everything in the universe is functionally connected. The assumption is that everything is interrelated and interdependent. According to Nobles (1984), the notion that all things are connected is known as consubstantiation, and is what forms the axis of the African worldview. In the African worldview, man is a force within a universal order that has the potential to harmonize nature. Harmony requires balancing the relationship between complementary opposites. Harmony with nature, group orientation and interpersonal relationships are of prime importance and highly valued. In the realm of coping behaviors, effective coping requires the ability to harmonize with life's events, which are the spiritual manifestations that occur in the physical material form. In this sense Africentered coping is viewed as an effort to maintain a sense of harmony and balance within the physical, metaphysical, collective/communal, and the spiritual/psychological realms of existence. When this balance is upset, stress and disease is the result, (Utsey, Adams, Bolden, 2000). Moreover the African self concept is philosophically viewed as the "we" instead of the "I". Africans thus believe that whatever happens to the individual self or "I" also happens to the corporate body or the "we" and vice versa (Akbar, 2004).

African Psychology is theory driven with anecdotal support, although there is a growing body of research that shows some promise. One such study is by Gaines, Larbie, Patel, & Sereke-Melake (2005), investigating what they refer to as the me-orientation of

individualism and the we-orientation of collectivism in a sample of persons of African-descent, persons of Asian-descent and persons of European-descent. A convenience sample of 227 (92 male and 132 female) from a university in London, UK, were given five 10-item scales measuring the cultural values of individualism, collectivism, familiasm, romanticism, and spiritualism, (Gaines, Ramkissoon, & Matthies, 2003). Gaines, et. al. (2003), hypothesized that African-descended persons would differ from European-descended persons and Asian-descended persons in the United Kingdom regarding the me-orientation of individualism and the we-orientation or collectivism, familiasm, romanticism and spiritualism. Results indicated that African-descended persons scored significantly higher than did European-descended persons on collectivism, familiasm, and romanticism. However African-descended persons did not score significantly different from European-descended persons on individualism or spiritualism. The results further indicated that African-descended persons did not score significantly different from Asian-descended persons on any of the five cultural values. The researchers explained the absence of a difference between African- and European-descended persons on individualism as a function of acculturation, although no measures of acculturation were given, as well as explaining the finding as an artifact of colonialism (Gaines, Larbie, Patel, Pereira, Sereke-Melake, 2005).

Constantine, Donnelly, & Myers (2002), looked at collective self-esteem and Africultural coping styles in African American adolescents. The sample consisted of 106, (57 female, and 49 male) African American adolescents between the ages of 14 years and 17 years. Participants were given a demographic questionnaire, assessing for race, ethnicity, sex, age, current grade levels and birthplace. Collective self esteem was

measured by the Collective Self-esteem Scale (Luthar & Crocker, 1992), a 16-item, 7-point Likert-type scale that assesses self-esteem as it relates to belonging to a specific social or cultural group. Africultural coping styles were measured using the Africultural Coping Style Inventory (Utsey et al., 2000), a 30-item, 4-point Likert-type scale that measures cultural specific coping behavior used by African Americans during stressful situations. Results indicated that greater collective self-esteem was associated with greater use of Africultural coping styles. The results of this study then seem to indicate that there is a relationship between collective self-esteem and an Africentric coping style. African centered scholars would argue that this link could act as a buffer against stress experienced by people of African descent.

Chambers, Kambon, Birdsong, Brown, Dixon, & Robbins-Brinson (1998), investigated Africentric cultural identity and stress in African American college students. The investigators hypothesized that students who experienced higher levels of stress were expected to exhibit higher levels of depression, anger, anxiety, and hostility compared to students who experienced lower levels of stress. They further predicted that students who experienced higher levels of stress would exhibit lower self-esteem, social support, perceived health, and grade point average compared to students who experienced lower levels of stress. A third hypothesis proposed was that students who have higher levels of Africentric cultural identity were expected to exhibit lower levels of stress, depression, anger, anxiety, and hostility compared to students who had lower Africentric cultural identity; and lastly, students who have higher levels of Africentric cultural identity were expected to exhibit higher self-esteem, perceived health, and grade point average.

Participants were 400 females and 301 male African American college students attending one of nine historically Black colleges, and ranged between 17 and 52 years of age. Participants completed the African Self-consciousness scale (ASC), (Baldwin & Bell, 1985), a 42-item scale that measures African self-consciousness; and The Anger-Expression Scale (AX), (Spielberger, 1985), that assessed anger coping. This is a 24-item scale that yields four different scores: express anger toward other people or objects in the environment; experience but hold in (suppress) angry feelings; control the experience and expression of anger; and a general index of how often anger is aroused and expressed or suppressed. The Beck Depression Inventory, (BDI), (Beck, 1967), was used to measure depression. The Inventory of College Student's Recent Life Experiences, (ICSRLE), (Kohn, Lafreniere, & Gurevich, 1990, was used to measure daily stress. The degree to which one appraises one's life as stressful was measured by the Perceived Stress Scale, (PSS), (Cohen, Kamarack, & Mermelstein, 1983). Self-esteem was measured by the Rosenberg Self-Esteem Scale, (SES, Rosenberg, 1965). Psychiatric symptoms were measured by the Symptom Checklist-90 (SCL-90, Derogatis, 1977). Participants also completed a background questionnaire that included a Body Mass Index that was assessed by their weight and height. Results indicated perceived and daily stress to be highly correlated with each other, with females having higher perceived stress. Results further indicated a positive correlation between stress (both perceived and daily stress) and anger, depression, anxiety, hostility, and psychiatric symptoms, thus supporting the first hypothesis. The inverse correlation between stress and self-esteem, perceived health and GPA, supported the second hypothesis. Africentric cultural identity however was not associated with stress related variables as predicted by hypotheses 3 and 4. African Self

Consciousness (ASC) was correlated with GPA for both males and females and with self-esteem for males. The researchers suggest that ASC tap into an academic motivational component that is part of the African tradition of collectivism and self-fortification. The investigators also suggest that the non-significant relationship between stress and Africentric Cultural identity could be an artifact of the stress measures that are based on Western-European culture and therefore do not adequately assess stress from an African perspective. Prior research has established the influence of culture on the coping behavior of African Americans with regard to defining stressors, promoting specific coping strategies, and providing the context within which coping occurs (Utsey, Adams, & Bolden, 2000, Daly, Jennings, Beckett, & Leashore, 1995, Parks, 1998).

Coping behaviors that are unique to African Americans

In a retrospective qualitative study by Bryant-Davis (2005), looking at the coping strategies employed by African American adults survivors of childhood violence, fifteen strategies were identified. These included community support, spirituality, activism, creativity, introspection, confrontation, therapy/medication, escapism, desensitization, transcendence, humor, safety precautions, and racial reframing /attribution. Of the sample of 70, 55% used spirituality as a coping strategy, 29% used creativity and artistic expression, and 26% reported engaging in activism as a way of coping with their childhood trauma.

For the purpose of the current study, the coping strategies that will be investigated include family support, friends and social/community support, spiritual centered coping and ritual centered coping.

Family support

Kinship ties make up what is perhaps one of the most enduring and important aspects of the African heritage (Boyd-Franklin, 2003). For generations of African Americans, the extended family has been a source of cultural pride and strength. Walsh (1996), has suggested that "a focus on family resiliency seeks to identify and foster processes that enable families to cope more effectively and emerge hardier from the crisis of persistent stresses, whether from within or from without" (p.263). Hill (1999), defines family strengths as those 'traits that facilitate the ability of the family to meet the needs of its members and the demands made upon it by the system outside the family unit." (p.42). Hill goes on to propose five strengths that had been culturally transmitted through African ancestry to Black families, namely: strong kinship bonds; a strong work orientation; a strong achievement orientation; flexible family roles; and a strong religious orientation. On a more practical day to day level, Sarkisian, & Gerstel (2004), found that Black families were more involved in practical support, such as help with transportation, household work, and child care, than white families. In times of trouble, extended family members, grandparents, siblings, aunts and uncles, informally adopt or "take in" children, (Billingsley, 1986, Hill, 1977, Boyd-Franklin, 1989). Within the African American culture, extended family however does not only include blood relations. Non-relatives such as friends of the family, neighbors, godparents or members of the church family often act in the capacity of caretakers. Older caretakers in the extended family often serve a central role in the family. Boyd Franklin et al. (1995), refer to the elder caretakers as the switchboard for all family communications. These older family members, often grandmothers, serve as not only the tower of strength but also as the

"glue" that holds the family together. Hildreth, Boglin, & Mask (2000), state that Black families have proven that they have the ability to bounce back after hardship and adversity, and further postulate that the 21st century holds within it new challenges for the black family, that will further call on its ability to survive and protect its members.

Collective Coping (Friends and social/community support)

Collective coping for the purpose of this study will include support that come from non-relatives, such as friends, and community or social support. Social support has been linked to several adaptive outcomes for African American and Latinos with disabilities (Zea, Belgrave, Townsend, Jarama, & Banks, 1996). Research findings have also demonstrated that elders with supportive housing have better psychological outcomes (Cleak, & Howe, 2003). Additionally the importance of social networks in protecting against illness, enhancing coping skills and improving illness outcomes has been well established in the literature (Rubinstein et al., 1994, Seeman, 1996, Berkman, 2000). Zea et al. (1996), define social support as information from others that one is loved and cared for, esteemed and valued and a part of a network of communication and mutual obligations. The literature suggests that different ethnic/cultural groups may access and perceive social support differently. Snowden (2001), found that African American men report themselves to be more socially embedded than White American men; social embeddedness being defined as interaction with friends, and participation in groups and community organizations. Snowden also found a significant relationship between social embeddedness and psychological well being. The findings of numerous reviews of social support have pointed to the positive benefits of social support on functioning and outcomes in both White populations and populations of Color (Zea et al.,

1996). Community support can be defined as talking to others (non-professional) to explore themes related to trauma/stress or to problem solve the effects of trauma/stress (Bryant-Davis, 2005).

In a study investigating dating violence and psychological well being in African American girls, social support was found to be a mediator of the relationship between dating violence and psychological well being (Salazar, Wingwood, DiClemente, Lang, & Harrington, 2004). The researchers concluded that dating violence programs for African American girls should consider incorporating family, church, and other networks in the community that foster support, and allow adolescent girls to discuss their abusive experience in a non-blaming environment. Finally, social support has also been documented to influence, coping skills and improving health outcomes of persons with chronic illnesses (Cleak, & Howe, 2003).

Spiritual centered coping

Spirituality can be seen as using one's faith in a Higher Being or in the universal order of things to make sense of the stressor, or to increase one's sense of efficacy in the handling of the stressor (Bryant-Davis, 2005). The outward expression of spirituality is often seen in religious activities such as church attendance (Jennings, 1996). Spirituality has historically been noted as prominent in African American culture. The Black church has played a significant role in the lives of African Americans in a variety of ways, including providing spiritual guidance, educational programs and services, emotional and psychological support, political advocacy, community development services, financial support and numerous other roles (Swanson, Crowther, Green, & Armstrong, 2004). An example of the role clergy can play is in the area of HIV/AIDS prevention and

intervention efforts in the African American community (Swanson, et al. 2004). Despite the increase in HIV among African Americans, there still remains a significant amount of resistance and denial. Clergy throughout the country are taking the lead in discussing HIV and AIDS among African Americans. An important illustration is the Annual Black Church Week of Prayer for the Healing of AIDS week. The 2006 event involved 10, 000 churches in the US and was the largest ever HIV/AIDS awareness campaign targeting African Americans. The campaign was designed to engage Black congregations to support, encourage and empower African Americans, Africans, and all people of the Diaspora towards taking action towards stopping the spread of HIV/AIDS in Black communities worldwide (from African Americans Reach and Teach Health – www.aarth.org/ - AARTH Website, retrieved April 5, 2006).

Belief in fate and destiny is another factor that researchers are exploring to understand the complex relationship among health attitudes, behaviors and outcomes of African Americans. Researchers have looked at pessimistic and fatalistic attitudes toward health**.** Many beliefs and perceptions of African Americans regarding health may be related to religion. According to Clark-Tasker (1993), many African Americans believe that illness may be due to a failure to live according to God's will and acceptance of fate and destiny. For example many believe that God is in control of their health and that healing can come through prayer and faith in God.

Ritual centered coping

The use of rituals can be cognitive in nature like the use of prayer and meditation, but it can also be behavioral, like the lighting of candles, and the burning of incense. Rituals can also include family dinners, or reunions (Boyd-Franklin, Steiner, Boland,

1995). Rituals can add a sense of meaning and to a certain degree predictability. As indicated before (Hildreth, et al, 2004, Boyd-Franklin, 2003), African Americans living in the United States have a history of enduring oppression and significant life stressors. This is one of the reasons for the origin of the ritual KWANZAA, an African American week long annual celebration promoting collective family and community principles (Karenga, 1989) .The advent of the HIV/AIDS pandemic in the African American community therefore presents an opportunity to investigate the effectiveness of these cultural specific coping skills in the 21st century.

Coping, HIV and American Women of African Descent

Little attention has been given to the inner world of women of color who are HIV positive (Boyd-Franklin, 1997). These women often face multiple stressors that impact how they are able to cope with the chronic life threatening disease of HIV/AIDS. Wyatt (1997), writes, "no women are more devalued in our society than women of color" (p. xvii). The CDC (2004) reports that during 2000/2003, 125,800 cases of HIV/AIDS were diagnosed in the USA (only 32 states use confidential, name based reporting of HIV and AIDS). Of these persons 28% were female, and even though non-Hispanic Blacks only comprise 13% of the population of the 32 states, they accounted for 51.3% of HIV/AIDS diagnoses. A report from the Panos Institute (1990) suggests that the identification of high levels of infection among black and Latino communities is related to two specific factors: disadvantage and poverty.

In 2001 African American women accounted for 64% of reported cases of HIV among women, (Prado, Feaster, Schwartz, Pratt, Smith & Szapocznik, 2004). In 2006 the CDC updated their statistics and even though the report indicates that incidence (newly

diagnosed) remained stable, Blacks still accounted for 49% of all newly diagnosed cases (CDC, 2006). Given this statistic the need to consider the impact of culture on mental health and coping in this population is thought to be urgently needed.

The relationship between coping and adjustment in HIV infected persons has been investigated for more that two decades (Heckman, 2003). In spite of the many health and social problems faced by people with HIV infection (Catalán, 1999), improved adjustment in HIV infected persons is generally associated with greater use of coping strategies characterized as active, confrontive or engaging in nature (Fleishman & Fogel, 1994; Remien, Rabkin & Katoff, 1992; Burgess, Carratero, Elkington, Pasqual-Marsettin, Lobaccaro, & Catalan, 2000).

Survey data from 230 low income HIV positive individuals of African descent in New York City indicated high levels of spirituality and spiritually based coping (Simoni, & Ng 2002). Heckman (2003), found a significant inverse relationship between AIDS discrimination and psychological well being. The study found however, two factors that acted as a buffer for the negative impact of AIDS discrimination, identified as higher levels of social support and coping strategies that were more active in nature. Over the past 5 years the number of new AIDS cases and deaths in the United States fell, and in 1998, the number of AIDS deaths declined by almost two thirds from the all time high recorded in 1995. Despite this decline, growing numbers of new AIDS cases are emerging among urban minority women, particularly African American women (Jipguep, Sanders-Phillips, 2004).

The disproportionate number of AIDS cases among African American women has been partially attributed to institutional racism, and economic vulnerability (Gilbert,

2000). These social, political and economic forces as well as experiences of racism and poverty place African American women in high-risk situations that may increase their vulnerability to HIV infection. The literature shows that poverty influences stress, victimization, poor health status, substance use and abuse, and psychological functioning, and limits access to physical and mental health care (Gilbert, 2003; Zwi & Cabral, 1992). In addition to social and cultural norms on women's HIV risk and HIV prevention, broader structural and societal factors, such as the role of women in society, as nurturer and comforter, and gender power-differentiation with men holding more power in society, may contribute to African American women's sexual decisions (Hearn & Jackson, 2002). Several researchers have concluded that gender-based factors such as woman's interpersonal connections, traditional social norms, sexual roles, race, and socioeconomic vulnerability affect a woman's ability to engage in HIV-related protective behaviors (Wyatt, 1994, Wingood & DeClemente, 1998). Jipguep, Sanders-Phillips & Cotton (2004), looked at the interaction between socio-cultural and psychological factors as predictors of health behavioral outcomes, in African American women at high risk for HIV infection. The investigators tested a conceptual model of perceived HIV risk using perceived racism-related stress and perceived urban-life stress as predictors. Levels of depression and anger were examined as moderating variables. Participants were 129 African American mothers whose children were enrolled in 16 Head Start programs located in Los Angeles. Perceived racism was measured by the Racism and Life Experience Scale (RaLes, Harrell, 1997), and Perceived stress was measured by the Urban Life Stress Scale, (ULS, Harrell, 1992). The center of Epidemiological Studies-Depression Scale (CES-D, Radloff, 1977), was used to assess depression. Anger was

measured by the State Trait Anger Expression Inventory, (STAXI, Spielberger, 1988). Psychological distress was measured by the CES-D and the STAXI. Perceived HIV risk was measured by two questions: "I don't really think AIDS is something I need to be concerned about", and "There is nothing I can do to prevent AIDS" derived from the AIDS perception scale. HIV prevention behavior was measured through a composite index of five questions. Results indicated that participants were experiencing relatively high levels of urban stress and racism. In general the results suggest that if a woman's perception of stress was high, she tended to report increased levels of depression, anger, and psychological distress. Results further indicated that women with the above profile saw themselves at low risk for HIV infection and engaged in minimal HIV prevention behavior. Separate hierarchical regressions were performed on each of the criterion variables, HIV risk, and prevention behavior, and found that an increase in perceived racism was significantly associated with an increase in HIV prevention behavior. The relationship between perceived stress and HIV risk were dependent upon levels of depression. Findings suggest that lower levels of depression appeared to promote an increase in HIV prevention behavior even when perceived racism and perceived stress was high. Thus depression was thought to be a significant moderator between perceived racism, perceived stress and HIV prevention behavior. The study confirms the importance of interactions between socio-cultural factors and psychological factors as predictors of health behavioral outcomes, and reinforces the need to examine the impact of structural factors on psychological functioning, perceived HIV risk, and HIV prevention behavior in African American women (Jipguep, et al, 2004).

Gillman & Newman (1996), looked at the psychosocial concerns and strengths of women living with HIV. Sixty-seven HIV infected women between the ages of 20 and 47 were interviewed. The sample consisted of 60% African American, 21% white, 13% Latino, and 6% reported biracial or other racial. The respondents lived in the metropolitan area of Philadelphia and the average number of years of school completed was 11.38. Sixty percent lived in a family situation, 10% lived alone, and 30% lived in other situations such as group homes, prison or drug rehabilitation centers. Fifty-five percent stated that they were involved in an ongoing relationship, of which 43% reported that their partner was also HIV positive, 43% reported that their partner was HIV negative, and 14% said that their partner had not been tested. Eighty-one percent of the women had at least one living child, with the average number of children being two. Twelve mothers had 14 HIV-positive children between the ages of 11 months and 8 years, and 10 women had a child 24 months or younger whose HIV status had not been determined. Other than medical services, the women reported using formal support services, such as case managers, social workers, or support groups that meet at least once a week. Seventy-two percent of the respondents had disclosed their status to more than ten people, 12% had disclosed to four or less people, and 5% had not discussed their status with anyone. The study found that those women with a more recent diagnosis had disclosed to fewer people. A content analysis of the women's responses revealed five themes: concern for children; religion; tired of life-style; HIV or other health concerns; and incarceration. Respondents were also presented with a 12-item list of possible psychosocial concerns, including financial, housing, emotional distress, drugs, having an HIV-positive child, other child concerns, partner concerns, family concerns, own HIV

health, other health concerns, sex, and death and dying. Respondents were then asked to rank order the five most pressing of these concerns in their lives before and after HIV diagnosis. Results indicated that financial concerns remained the most pressing before and after HIV diagnosis. Respondents indicated that before their HIV diagnosis, their second greatest concern, after finances was that of drug use and abuse. However, respondents indicated that after they were diagnosed with HIV, drug use and abuse concerns were not that important to them anymore, and was replaced with concerns related to housing. HIV health issues were ranked as one of the three most pressing current concerns followed by death and dying, and children with HIV. Gillman and Newman (1996), reported that even under extraordinary circumstances that included poverty, discrimination, and a devastating life-threatening disease, which often included their partner and children, these women showed a strong will to live. Some of the women in the sample used their diagnoses to reestablish priorities around parenting, relationships and drug use. Finally Gillman & Newman (1996), further reported that for the women in the sample, HIV was just one of the many problems that they faced. Often they were much more concerned with where to eat, where to sleep, and how to provide for their children, concerns often shared by other impoverished women living in an urban setting.

In a multiethnic sample of 53 HIV positive women, Kaplan, Marks, & Mertens (1997), found that prayer, and rediscovery of self were the most frequent coping responses of the group to their HIV-positive diagnosis. Owens (2003), did a qualitative study of African American women living with HIV/AIDS. Eighteen women between the ages of 31 to 49 years were interviewed. The average number of years of education was 8.8 and the monthly income ranged from $140 to more than $2,000. Owens (2003) found

that women spontaneously named family as the most helpful or the most problematic. The women's definitions of who comprised their family included parents, grandparents, siblings, children, uncles, in-laws and also their spiritual kin. Data analysis revealed family to be of support in three primary categories: emotional support, concrete support, and cognitive/informational support. The difficulties with families were described as families who did not listen or exhibited ineffecting communication patterns. Participants were also worried whether the family would be available to support them when they became sicker. Others were concerned about the family not having the resources to help them when they became ill. Owens (2003), reported that for some women the family bond was made stronger and more stable by the fact that these women could turn to their families for support, whereas for others stress was increased by the fact that they experienced their families as not listening or unable to hear their concerns about getting sicker. The literature seems to indicate that even within a socio-historical-political climate of poverty and discrimination, many women of African descent living with HIV, have shown a resilience that has led to high levels of psychological well being, which in turn leads to better health outcomes.

Psychological Well being

While the World Health Organization (1986), defines health status as more than just the absence of disease, but rather a state of complete physical, mental and social well being, psychological well being is a construct that still needs to be more clearly defined (Ryff, 1996). The literature presents a wide array of definitions that include the absence of psychological symptoms, self-report of levels of life satisfaction and happiness, and the presence of various existential factors such as autonomy, life purpose and emotional

connection with others. Some have argued that the very notion of well being is inextricably culture bound and has to be understood within the cultural experience of racial-cultural groups (Jackson et. al. 1996). While incorporating elements of psychological distress, the assessment of psychological well being includes aspects of positive life experiences and wellness, in relation to mental health. Cognitive assessment (life satisfaction) and affective experience (happiness) have been found to serve as the core of previous approaches to the well being measurement (Diener, 1997).

Additional definitions include the ability to maneuver and negotiate through the stresses of life while retaining a sense of being psychologically intact with a mature point of view (Franklin & Jackson, 1990). Specifically Franklin and Jackson have defined positive mental health as, "a psychological orientation towards life experiences with attributes of inner strength, resiliency, optimism, and capacity for mastery (pp.291)." This definition of positive mental health is influenced by the work of Marie Jahoda (1958), who defines mental health as "a relatively constant and enduring function of personality, leading to predictable differences in behavior and feelings of personality depending on the stresses and strains of the situation in which the person finds himself, or a momentary function of personality and situation" (from Franklin & Jackson, 1990, pp. 291). Jahoda identified six major dimensions that contribute to the definition of positive mental health: 1) attitudes of the individual toward herself; 2) the degree to which the person realizes her potentialities through action; 3) unification of the individual's personality; 4) the individual's degree of independence of social influences; 5) how the individual sees the world around her; 6) the ability to take life as it comes and master it.

For the purpose of this study psychological well being will be the outcome variable by which the influence of Africentric Coping will be measured.

Psychological well being and African-Americans

The mental well being of African Americans includes their life stressors, poor psychological functioning, and mental illness (Poussaint, 1990). Franklin and Jackson (1990), also argue that mental well being for African Americans includes their individual high self-esteem, and a strong sense of self-efficacy, which are factors that may mitigate conditions of African American's poor mental well being and promote positive mental well being. A study looking at psychological well being in a sample of African American men and women who were HIV positive found that existential well being, which the researchers described as a spiritual indicator of meaning and purpose, significantly related to psychological well being (Coleman, & Holzemer, 1999). The sense that there is meaning and purpose in life was more of a predictor of psychological well being than merely scoring high on religious involvement.

Numerous studies have looked at the link between psychological well being and health status. One such study looked at the health status and psychological well being in a sample of African American women and further tried to determine how psychological stress is associated with health status and psychological well being (Rohm-Young, He, Genkinger, Sapun, Mabry, & Jehn, 2004). The researchers proposed that after controlling for confounding demographic variables, lower levels of psychological stress would be associated with higher health status and psychological well being. Participants were 128 African American women, between the ages of 25 and 70. Health status was measured with the SF-36, a health survey that was developed out of the RAND Medical

Outcomes Study. Well being was measured with Cantril's Ladder of Life scale (Palmore & Kivett, 1977), a global measure of well being. Perceived stress was measured by the 14-item Perceived Stress Scale (Cohen, et al. 1983). Results indicated that perceived stress scores were negatively correlated with most of the health status dimensions as well as that of well being. Multiple regression analysis indicated that higher perceived stress was associated with lower health status and well being. The researchers suggest that interventions should be designed to reduce stress, which in turn will impact future morbidity and mortality (Rohm Young, He, Genkinger, Sapun, Mabry, & Jehn, 2004)

Psychological well being and HIV

The advent of highly active antiretroviral therapy (HAART) has resulted in longer life expectancy, reduction of HIV disease progression and fewer complications related to compromised immuno-functioning. These advances with increased new cases of HIV infection have resulted in more people living with HIV infection. However, HAART brings with it new complications and added stressors associated with HIV infection (Safren, et al, 2002). Individuals on HAART have to follow a strict regimen that includes numerous doses and strict dosing times that often require shifts in schedules and life tasks in order to maintain the drug regimen. Studies have found that even minor deviations from the schedule can result in a drug resistant strain of the virus. These stressors are added to an already taxing psychologically distressful situation for people living with HIV/AIDS. Studies have shown an association between life satisfaction and medical decision making, between depression and poor adherence to HIV medication (Safren, et. al., 2002; Cargill, et. al., 2004).

Safren et al, (2002), examined several cognitive and behavioral variables relevant to psychological well being in HIV patients receiving HAART. The investigators hypothesized a significant relationship between indicators of stress and lower well being. Furthermore they hypothesized that the potentially protective variables of social support and positive coping would protect HIV patients on HAART against the deleterious effects of life stress, and stress associated with this intense medical regimen. The study included 84 persons with HIV infection between the ages of 23 and 68 years. The study group was ethnically diverse, with 27% African American, 19% Hispanic, 37% Caucasian, 4% biracial or multiracial, and 6% indicating other. Of the participants 76 were men and eight were women. Dependent variables were depression, self-esteem and, quality of life, which assessed the person's satisfaction in particular areas of life. Life stress, social support and coping styles were assessed also. Results indicated a significant correlation between depression, quality of life and self-esteem. Quality of life and self-esteem were positively correlated with each other; however, both Quality of life and self-esteem were negatively correlated with depression. Stressful life events had a significant negative association with quality of life and a significant positive association with depression. Adaptive coping had a significant positive association with quality of life and self-esteem but not with depression. Maladaptive coping had a significant negative association with quality of life and self-esteem and a significant positive relationship with depression.

The review of the literature therefore suggests that a chronic illness such as HIV/AIDS has the potential of impacting psychological well being and life satisfaction. Furthermore, Americans of African descent experience the stress associated with an HIV

disease within the context of socio-economics stressors, such as poverty, and living in dangerous neighborhoods as well as the stress related to ongoing discrimination and racism. Finally African American women are often viewed as being a particularly vulnerable population, often bearing the brunt of living in a racist and sexist society. However, many African American women display resilience in the face of these significant life stressors.

Problem Statement

The literature represents an alarming trend of HIV infection among African American women of child-bearing age. Evidence exists that there is a significant association between HIV diagnosis and psychological distress, treatment adherence and disease progression. Additionally evidence exists that coping strategies are influenced by culture. Therefore, it is the purpose of this study to investigate the association between a cultural specific Africentric coping style and psychological well being in women of African decent confronted with life stressors from living with HIV/AIDS.

Hypotheses

1. When controlling for general life stress, HIV disease related stress will be inversely related to psychological well being.
2. When controlling for general life stress, HIV disease related stress will be positively related to psychological distress.
3. Africentric Coping style will be positively related to psychological well being and inversely related to psychological distress, after controlling for general life stress, HIV stress and general coping styles.

4. Africentric Coping style will be positively related to positive self-esteem and inversely related to negative self-esteem after controlling for general life stress, HIV stress and general coping styles.

Chapter Three – Method

Participants

Participants were 165 women of African descent, with a HIV seropositive status, recruited from the Washington DC metropolitan area. Age of the participants ranged from 21 to 71 with a mean age of 45.24 *(SD 8.93).* HIV seropositive status was determined by self-report. Ethnically, of the 165 participants 94.5% identified as African American (*n = 156*), 1.2% identified as African (*n = 2*), .6% identified as Puerto Rican (*n = 1*), .6% identified as Other Caribbean (*n = 1*), and 1.2% identified as other (*n = 2*). Ninety-seven percent (*n = 161*) of the participants were born in the USA. Participants described themselves as either lower class (37.6%, *n = 62*), working class (32.1%, *n = 53*) middle class (24.8%, *n = 41*), or upper middle class (3.6%, *n = 6*). Fifty-three percent (*n = 83*) of participants indicated their highest level of education being High School; 26.7% (*n = 44*) indicated taking some college classes; 9.7% (*n = 16*) Vocational Training; of the remaining participants 3% (*n = 5*) had attended Grade School; 3% (*n = 5*) completed a four-year college degree; 3% (*n = 5*) completed a graduate degree; and 1.2% (*n = 3*) indicated their highest level of education to be Post-Graduate Training). Most of the participants reported their religion to be Baptist (46.1%, *n= 76*) and Christian (18.8, *n = 31*). Time Since HIV Diagnosis ranged from 5 months to 960 months with a mean Time Since HIV Diagnosis of 136.34(*SD 102.97*). Table 1 provides details on the demographic characteristics of the sample.

Total number of subjects were determined by employing an accepted rule of thumb approach (Maxwell, 2000), using the total number of variables to be examined in the study in order to successfully undertake the planned statistical analysis (Multiple

Regression Analysis). Thus the minimal sample size was determined to be no less than 145 subjects in order to account for all predictor variables (i.e. general stress as measured by Perceived Stress Scale, disease specific stress as measured by HIV Stress Scale, general coping as measured by the Ways of Coping Questionnaire, and culture specific coping as measured by the Africultural Coping Style Inventory), as well as the criterion variables (i.e. psychological well being as measured by the Mental Health Inventory, and Franklin Psychological Well being Inventory), and possible categories generated from demographic data i.e. age, religion, socio-economic status and time since diagnosis. Participants were excluded if they reported to be transgendered.

Measures

The present study employed six research instruments plus a personal data form/demographic form (see Appendix A). The instruments included The Perceived Stress Scale-10 item –PSS (Cohen, Kamarck, Mermelstein, 1983); The HIV/AIDS Stress Scale (Pakenham & Rinaldis, 2002); The Ways of Coping Questionnaire –WCQ (Lazarus & Folkman. 1984); Africultural Coping Style Inventory-ACSI (Utsey, Adams, Bolden, 2000); The Mental Health Inventory –MHI (Veit & Ware, 1984); and the Franklin Psychological Well being Index (Franklin, 1996). Each construct had two instruments, one that was a generally well accepted instrument and one that was a culturally specific instrument in the case of coping and psychological well being, or disease specific as in the case with stress. (see appendices for all measures).

Predictor Variables

The Perceived Stress Scale-10 item – PSS (Cohen, Kamarck, Mermelstein 1983), is a 10-item self-report measure that assesses the degree to which situations in the respondent's life is perceived as stressful (see Appendix B). Items were designed to

assess how unpredictable, uncontrollable, and overloading respondents find their lives. The scale includes direct inquiries about current levels of experienced stress. The questions on the PSS ask about feelings and thoughts during the last month, (e.g., In the last month how often have you been upset because of something that happened unexpectedly? In the last month, how often have you felt nervous and "stressed"? In the last month, how often have you felt that you were on top of things?). In each case the respondents are asked how often they felt a certain way, and answers are rated on a 5-point Likert-type scale, with 0 = never, 1 = Almost Never, 2 = Sometimes, 3 = Fairly Often, and 4 = very often. Scores are obtained by reversing responses to the four positively stated items and then summing across all scale items. A single PSS score is obtained by summing all the scores with a higher score reflective of higher perceptions of stress and lower scores reflective of lower perceptions of life stress. Psychometric data for the PSS has generally been found to be adequate with internal consistency as measured by Cronbach's alpha ranging from .84 to .86 (Cohen & Williamson, 1988). Cronbach's Alpha for the current sample was calculated to be .71. Cohen & Williamson (1988), provide evidence for construct and discriminant validity of the PSS. While the PSS has been criticized as measuring psychological symptoms as opposed to stress (Lazarus, DeLongis, Folkman & Greuis, 1986), Cohen & Williamson report that the PSS can be considered predictive of physical and psychological functioning independently of measures of psychological symptomatology. Furthermore, evidence of validity of the PSS can be seen in its relationship with maladaptive health related behaviors such as increased smoking, higher rates of relapse among people attempting to quite smoking and failure among diabetics to control blood sugar levels (Cohen, Sherrod & Clark, 1986).

The HIV/AIDS Stress Scale (Pakenham & Rinaldis, 2002), is a 23-item self-report measure of stress specific to HIV/AIDS (see Appendix C). Items were generated from a review of the literature and were validated as important or relevant by HIV/AIDS service providers and persons with HIV. For each item the respondents indicate yes/no as to whether a particular problem had been experienced in the last month. Respondents are then asked to rate how distressing a problem is on a 5-point Likert type scale with 0 being not at all, 1 a little, 2 moderately, 3 quite a bit, and 4 being extremely distressing. The items fall within one of three factors: social stress (10-items), instrumental stress (7-items), and emotional/existential stress (6-items). Examples of items reflected by each factor are: Social stress (e.g., difficulties in telling others of your HIV/AIDS status, and relationship difficulties related to HIV/AIDS); Instrumental stress (e.g., financial difficulties related to HIV/AIDS, and difficulty with health care system); Emotional/existential stress (e.g., concerns about death related to HIV/AIDS and difficulty in coming to terms with HIV/AIDS status). Factors have adequate internal reliabilities with Chronbach's alphas indicated as .85 for Social Stress, .76 for Instrumental Stress, and .79 for Emotional/Existential Stress. Reliability coefficients for the current sample were .88 for HIV Social stress, .79 for HIV Instrumental Stress, .87 for HIV Emotional/Existential Stress. In an initial study by Pakenham and Rinaldis (2002), the HIV/Stress scale was noted to be positively associated with measures of depression and global distress. The authors offered these findings as initial evidence for the construct validity of the HIV/Stress scale. Furthermore, scores on the HIV/Stress scale were inversely correlated with measures of social support, thereby offering evidence of discriminant validity.

The Ways of Coping Questionnaire –WCQ (Lazarus & Folkman, 1984), is a 66-item questionnaire with eight empirically derived factors made up of 50 items measuring coping and 16 filler items (see Appendix E). Responses are made to a real life stress situation experienced by the respondent which she has written down. The eight factors are as follows; 1) Confrontive Coping – 6 items, (e.g., I stood my ground and fought for what I wanted.); 2) Distancing – 6 items, (e.g., Went on as if nothing had happened.); 3) Self-Controlling – 7 items, (e.g., I tried to keep my feelings to myself); 4) Seeking Social Support – 6 items, (e.g., Talked to someone to find out more about the situation.); 5) Accepting responsibility – 4 items, (e.g., Criticized or Lectured myself.); 6) Escape-Avoidance – 8 items, (e.g., Hoped a miracle would happen.); 7) Planful Problem Solving – 6 items, (e.g., I made a plan of action and followed it.); 8) Positive Reappraisal – 7 items, (e.g., Changed or grew as a person in a good way.).

Response format to the scales are a 4-point Likert-type rating scale, with 0 = Not used, 1 = Used somewhat, 2 = Used quite a bit, and 3 = Used a great deal. The intercorrelations between the scales are low confirming their independence. Chronbach's alpha has been reported as ranging from .66 to .79 (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen 1986). To measure general coping styles the current sample used the four subscales that, during the development and initial validation of the ACSI, demonstrated concurrent validity with the ACSI subscales (Utsey, Adams, Bolden, 2000). For the current sample Chronbach's alpha reliability coefficients were calculated as .79 for Positive Reappraisal; .75 for Escape Avoidance; .71 for Seeking Social Support; and .65 for Distancing.

Africultural Coping Style Inventory-ACSI (Utsey, Adams, Bolden, 2000). The ACSI is a 30-item self-report measure of the unique coping behaviors employed by African Americans during stressful encounters with the environment, (see Appendix D). To complete the ACSI participants were asked to recall a stressful situation that occurred within the past week or so. After recalling the event, respondents were then required to briefly describe the stressful situation. The ACSI requires respondents to indicate which coping strategy they employed in coping with the stressful situation, using a 4-point Likert-type scale (0 = did not use, 1 = used a little, 2 = used a lot, 3 = used a great deal). The ACSI is grounded in an African-centered conceptual framework that emphasizes the importance of the group over the individual, and the interconnectedness of all life; and consists of the following dimensions or subscales: Cognitive/Emotional Debriefing (CED)-11 items (e.g., Tried to convince myself that it wasn't so bad; got dressed up in my best clothing); Spiritual-Centered Coping (SC)- 8 items (e.g., Prayed that things would work themselves out; left matters in God's hand); Collective Coping (CC)- 8 items (e.g., Got group of family or friends together to help with the problem; thought about the struggles black people have had to endure and this gave me strength to deal with the situation); and Ritual-centered Coping (RC)- 3 items (e.g., Lit a candle for strength or guidance in dealing with the problem; used a cross or other object for its special powers in dealing with the problem). The coefficient alphas for the four subscales of the ACSI were .79 for CED; .82 for SC; .78 for CC; and .76 for RC. With regard to the ACSI subscale inter correlations CED correlated .40 with SC; .34 with CC; and .30 with RC. The SC subscale correlated .50 with the CC subscale and .38 with the RC subscale, and the CC subscale correlated .39 with the RC subscale (Utsey, Adams, & Bolden, 2000).

For the current sample Chronbach's Alpha Reliability coefficients were calculated as .82 for Cognitive Emotional Debriefing; .82 for Spiritual Centered coping; .83 for Collective coping; and .76 for Ritual Centered Coping.

Criterion Variables

The Mental Health Inventory – MHI (Veit & Ware, 1984), is a 38-item measure assessing both psychological distress and psychological well being in adults, (see Appendix F). Psychological distress is computed from the following subscales: anxiety, depression, and loss of behavioral and emotional control. Psychological well being is computed from the following subscales: general positive effect and emotional ties**.** Reliability as measured with Cronbach's Alpha is .96 for the overall scale; .93 for the psychological well being subscale; and .95 for the psychological distress scale. Scales and subscales for the MHI are computed by summing scores for each of the items of the respective subscales, coded such that higher scores indicate higher levels of the symptoms for psychological distress or higher levels of reports of well being, depending on the subscale. The MHI has been used in a range of studies including responses to aversive, physical and social events (Sigmon, Hotovy & Trask, 1996; Siegel, Karus & Ravels, 1998). In a study of perceived racism and psychological functioning the MHI's psychological distress index was positively associated with perceived stress and racism-related stress (Pieterse & Carter 2007), thereby providing evidence of construct validity for the MHI. For the current sample Chronbach's Alpha Reliability coefficients were calculated for the two subscales used and were as follows: .91 for Well being; .92 for Psychological distress.

The Franklin Psychological Well being Index (Franklin, 1996). The Franklin Psychological Well being Index is a 23-item measure of psychological well being that was developed from a broader survey called the *National Survey of Black Americans: A Study of Black American Life* (Franklin, 1996), (see Appendix G). The Franklin Psychological Well being Index is a deliberate attempt to explore normal ranges of behavior in the African-American population utilizing a national representative sample of Blacks. A factor analysis revealed the following 7 factors with Chronbach Alpha Reliability coefficients for the scales ranging between .59 and .70. Factor 1 - Happiness (Chronbach Alpha .65), includes three items (e.g., Taking all things together, how would you say things are these days?); Factor 2 - Self-esteem (positive/+), (Chronbach Alpha .64) includes three items (e.g., I am a useful person to have around); Factor 3 - Blame for a Bad Job (Chronbach Alpha .70) includes three items, (e.g. How important has not trying hard enough been in keeping you from getting a good job?); Factor 4 - Self-esteem (negative/-), (Chronbach Alpha .68) includes four items, (e.g., I feel that I can't do anything right.); Factor 5 - Economic Well being (Chronbach Alpha .63) includes four items (e.g., Over the past month or so have you had money problems); Factor 6 - Role Performance (Chronbach Alpha .61) includes three items (e.g., Given the chances you have had, how well have you done in the work or jobs you've had?); and Factor 7 - Interpersonal Relations (Chronbach Alpha .59) includes three items (e.g., Over the past month have you had problems with people outside your family?). For the current study Happiness, Positive Self-esteem and Negative Self-esteem were used as it conceptually matches psychological well being and psychological distress. Chronbach's Alpha Reliability coefficient for the current sample's Happiness factor was, .77; for the Positive

Self-esteem factor the Chronbach's alpha was .78; and for Negative Self-esteem the current sample's Chronbach Alpha was .74.

Procedure

Data was collected from residential facilities, and community organizations dealing with issues of HIV/AIDS and by word of mouth recruitment, in the Washington DC Metropolitan region of the United States. The appropriate approval from the above-mentioned institutions was obtained before data collection began. Participation was entirely voluntary with compensation being a stipend of $20**.** Surveys were administered individually. The purpose of the study was explained to all participants before completion of the survey packets. HIV in our society is viewed with stigma, therefore in order to minimize the risk of encountering stigma for being part of an HIV study, and since the only document that would link the participant to this study would be the consent form, written documentation of consent was wavered. By completing the study packet, the participant stated that she understood and agreed to be in the study. Participants were told that while their participation was appreciated, they could withdraw from participation at any time, without penalty. Survey response packets were coded with a subject/participant number to ensure anonymity. All participants were provided with a form outlining the purpose of the study, and the importance of confidentiality after they have completed the study packet (see Appendix H). The form also served the function of a debriefing.

Chapter Four – Results

Preliminary Analysis

The reliability, means and standard deviations for the four subscales of the Perceived Stress Scale (PSS), the HIV/AIDS Stress Scale, the four subscales of the Ways of Coping Questionnaire (WCQ), the four subscales of the Africultural Coping Style Inventory (ACSI), the two indices of the Mental Health Inventory and the subscale used from the Franklin Psychological Well being Index for the sample are shown in table 2. An examination of the correlation matrix indicates that the variables share low to moderate correlations that are significant at the .05 level of significance (see table 3). In order to test for any significant mean differences among the predictor variables across socio economic status, a multivariate analysis of variance was conducted (MANOVA). The three levels of social class was entered in the independent variable and the dependent variables included perceived stress, the three subsscales of the HIV/AIDS stress scale, the four subscales of the WCQ and the four subscales of the ACSI. Results of the MANOV indicated no significant differences in the dependant variables as measured by Wilk's Lambda (.76, p = .28). Subsequently all analyses were undertaken on the group as a whole.

Primary Analysis

The primary analysis tested the four stated hypotheses, i.e. 1.) When controlling for general life stress, HIV disease related stress will be inversely related to psychological well being; 2). When controlling for general life stress, HIV disease related stress will be positively related to psychological distress; 3) Africentric Coping style will be positively related to psychological well being and inversely related to psychological distress, after

controlling for general life stress, HIV stress and general coping styles; 4) Africentric Coping style will be positively related to positive self esteem and inversely related to negative self-esteem after controlling for general life stress, HIV stress and general coping style. These hypotheses were tested using hierarchical regression analysis. General life stress was measured by the Perceived Stress Scale-10 item (short-form). HIV/AIDS stress was measured by the three subscales of the HIV/AIDS Stress Scale, namely, HIV Social Stress, HIV Instrumental Stress, and HIV Emotional/Existential Stress. The predictor variables for general coping were measured by four subscales of the Ways of Coping Questionnaire: Seeking Social Support; Distancing; Escape-Avoidance; and Positive Reappraisal. The predictor variables entered for cultural specific coping were the subscales of the Africentered Coping Style Inventory (ACSI) namely: Ritual Centered Coping; Spiritual Centered Coping; Cognitive Emotional Debriefing; and Collective Coping. The predictor variables were the same for all the regression analyses. While a mediation analysis would be considered an appropriate analysis to examine the influence of coping on the relationship between stress and psychological outcomes due to the pattern of correlations between the ASCI subscales on Perceived stress, a mediation analysis was not able to be conducted, i.e. as per standard procedure for mediation analysis (Barron & Kenny, 1986). The independent variable, in this case perceived stress, needs to be significantly correlated with the mediator variable, in this case the ACSI Factors - Ritual Centered Coping; Spiritual Centered Coping; Cognitive Emotional Debriefing; and Collective Coping. However, none of the ACSI Factors were significantly correlated with perceived stress (see Table 3), resulting in mediation analysis not being conducted.

For Hypothesis I - to examine the influence of general life stress - PSS and HIV stress on psychological well being – MHI; and Hypothesis 2 - to examine the influence of PSS general life stress on MHI psychological distress, the variables were entered in the following order: Step 1 – PSS perceived stress; Step 2 – HIV social stress, HIV instrumental stress, HIV emotional/existential stress.

For Hypothesis 4 the order of entry for the predictor variables was the same as that for Hypothesis 3: on Step 1 – perceived stress; on Step 2, HIV social stress, HIV instrumental stress, HIV emotional/existential stress; on Step 3 – four subscales of the WCQ, namely, Seeking Social Support; Distancing; Escape-Avoidance; and Positive Reappraisal. On Step 4 the four subscales of the ACSI - Ritual Centered Coping, Spiritual Centered Coping, Cognitive Emotional Debriefing, and Collective Coping. The criterion variables in these regressions were the Positive Self-esteem index, and the Negative Self-esteem index of the Franklin Psychological Well Being Index. Given that the Franklin Psychological Well Being Index is a measure constructed for use on an African American population, it was decided to examine the associations between Africentric coping and Positive Self-esteem subscale, and Africentric coping and Negative Self-esteem subscale due to the cultural specificity of these constructs.

Hypotheses # 1 & # 2

When controlling for general life stress (as measured by the Perceived Stress Scale – PSS), HIV disease related stress (as measured by the HIV/AIDS Stress Scale) will be inversely associated with psychological well being (as measured by the Mental Health Inventory subscales of Psychological Well being) and positively associated with

psychological distress (as measured by the Mental Health Inventory subscale of Psychological Distress).

In the first regression the criterion variable was psychological well being and (see table 4) Results are as follows: Step 1 - $R^2 = .04; F\ (1,163) = 7.16, p < .01$, indicating that the general stress as measured by the PSS contributed to 4% of the variance. An examination of the Beta weights for Perceived stress showed a significant and inverse association between general life stress and psychological well being ($\beta = -.21, p < .01$) On Step 2 - $\Delta R^2 = .20, F\ (3, 160) = 14.36, p < .01$, indicating that when controlling for general life stress (PSS), HIV stress accounted for an additional 20% of the variance. Examination of the Beta weights for HIV Stress indicated that only HIV instrumental stress was a significant predictor and was inversely associated with psychological well being ($\beta = -.26, p < .05$).

In the second analysis (see table 5), the criterion variable was psychological distress. The results were as follows: Step 1 - $R^2 = .17, F\ (1, 163) = 33.95\ p < .01$, indicating that general life stress (perceived stress) contributed to 17% of the variance. An examination of the Beta weights for general life stress (PSS) indicated a significant and positive association between general life stress (perceived stress) and psychological distress ($\beta = .41\ p < .01$). For Step 2 - $\Delta R^2 = .29, F\ (3, 160) = 28.93, p < .01$ indicating that when controlling for general life stress (perceived stress), HIV Stress accounted for an additional 29% of the variance. An examination of the Beta weights for HIV Stress indicated that HIV emotional/existential stress was significantly and positively associated with psychological distress ($\beta = .33, p < .01$)

Hypothesis # 3

Africentric Coping style (as measured by the Africentric Coping Style Inventory – ACSI), will be positively related to psychological well being and inversely related to psychological distress (as measured by the Mental Health Inventory (MHI), after controlling for general life stress (as measured by the Perceived Stress Scale), HIV stress (as measured by the HIV/AIDS stress scale) and general coping styles (as measured by four subscales of the Ways of Coping Questionnaire – WCQ).

In order to test Hypothesis 3, two additional steps were added to the initial regression procedure. Subsequently the order of entry for the predictor variables was as follows: on Step 1 – Perceived Stress; on Step 2, HIV social stress, HIV instrumental stress, HIV emotional/existential stress; on Step 3 – four subscales of the WCQ, namely, Seeking Social Support; Distancing, Escape-Avoidance and Positive Reappraisal; on Step 4 the four subscales of the ACSI - Ritual Centered Coping, Spiritual Centered Coping, Cognitive Emotional Debriefing and Collective Coping. Scores on MHI psychological distress and psychological well being subscales were retained as the criterion variables. For psychological well being (see table 6), on Step 3, $\Delta R^2 = .15, F(4,156)) = 9.30, p < .01$, indicating that an additional 15% of the variance on psychological well being was accounted for by the four Ways of Coping subscales after controlling for Perceived Stress and HIV stress. An examination of the Beta weights indicated that positive reappraisal ($\beta = .31, p < .01$) had a significant and positive relationship with psychological well being and escape-avoidance ($\beta = -.14, p < .01$) suggesting that the ACSI accounted for an additional 4% of variance after controlling for Perceived Stress, HIV Stress and general

coping styles. An examination of the individual predictors however revealed no significant predictors among the four ACSI subscales.

For the hierarchical regression examining psychological distress on Step 3 $\Delta R^2 = .13$, $F(4,156)) = 11.92$, $p < .01$, indicating that an additional 13% of the variance on psychological distress was accounted for by the four Ways of Coping subscales after controlling for Perceived Stress and HIV stress. An examination of the Beta weights indicated that positive reappraisal ($\beta = -.21$ $p < .01$) had a significant and inverse relationship with psychological distress while for escape-avoidance ($\beta = .40$, $p < .01$), the relationship was significant and positive. The addition of the ASCI on Step 3 did not contribute additional variance with $\Delta R^2 = .01$ (p - ns).

Hypothesis # 4

Africentric Coping style will be positively related to positive self-esteem and inversely related to negative self-esteem (as measured by the Franklin Index of Psychological Well-Being), after controlling for general life stress, HIV stress and general coping style.

In order to test Hypothesis 4, again two additional steps were added to the initial regression procedure. Subsequently the order of entry for the predictor variables was as follows: on Step 1 – Perceived Stress; on Step 2, HIV social stress, HIV instrumental stress, HIV emotional/existential stress; on Step 3 – four subscales of the WCQ, namely, Seeking Social Support, Distancing, Escape-Avoidance, and Positive Reappraisal; on Step 4 the four subscales of the ACSI - Ritual Centered Coping, Spiritual Centered Coping, Cognitive Emotional Debriefing and Collective Coping. Scores on Positive Self-

esteem and Negative Self-esteem. Scales of the Franklin Index of Psychological Well Being, were entered as the criterion variables respectively.

For positive self esteem, (see Table 8) on step 3 $R^2 = .04$ $F(4,156)) = 1.88$, p ns, indicating that general coping style did not add variance after controlling for Perceived Stress and HIV Stress. On Step 4 however, the change in R^2 equaled .05 with $F(1,152) = 2.70$, $p < .05$. indicating that Africentric coping styles contributed an additional 5% of variance after controlling for Perceived Stress, HIV Stress, and general coping styles. An examination of the Beta weights indicated that collective coping ($\beta = .27$, $p < .05$) had a significant and positive relationship with positive self-esteem. No other individual predictors were significant.

For negative self-esteem (see table 9) on step 3, $\Delta R^2 = .07$, $F(51, 156) = 3.92$, $p < .01$, indicating that an additional 7% of the variance on negative self-esteem was accounted for by the four Ways of Coping subscales. An examination of the Beta weights indicated that positive reappraisal stress ($\beta = -.23$, $p < .01$) had a significant and inverse relationship with negative self-esteem and escape-avoidance ($\beta = .27$, $p < .01$) had a significant and positive relationship with negative self-esteem. No other individual predictors were significant. On Step 4 the change in R^2 was non-significant indicating that the ACSI did not add additional variance on negative self-esteem, (see Table 9).

In sum the results showed that for women of African descent who are HIV infected, general life stress significantly influenced their psychological well being and psychological distress. Furthermore, when controlling for general life stress, HIV stress was positively associated with psychological distress and inversely associated with psychological well being. Specifically HIV instrumental stress, the stress that comes

with difficulties surrounding HIV and every day life such as health care, and being able to work and provide for oneself and/or one's family, was significantly and inversely associated with psychological well being. On the other hand HIV emotional/existential stress, i.e., difficulties surrounding finding meaning in having the disease and/or dying, was significantly and positively associated with psychological distress.

When looking at the influence of coping, the four general coping styles as measured by the WCQ subscales: Positive reappraisal, Seeking social support, Distancing, and Escape/Avoidance, accounted for a greater amount of variance on psychological well being than the ACSI. Specifically Positive Reappraisal had a significant and positive relationship with psychological well being and a significant and inverse relationship with psychological distress. Culture specific coping styles, as measured by the ACSI, had a marginal influence on psychological well being, as measured by the MHI, was not associated with psychological distress; as measured by the MHI; or Negative Self-esteem as measured by the Franklin Psychological Well-being Index. However, cultural specific coping styles contributed additional variance to Positive Self-esteem, with collective coping being positively associated with Positive Self-esteem.

Chapter 5 - Discussion

HIV infection rates are rising amongst African American women, but there still remains a disparity in studies that investigate this population. The present study is an attempt to investigate coping as it relates to culture and psychological well being in this population.

Results of this study established that for the current sample HIV disease related stress was positively associated with psychological distress and inversely associated with psychological well being. Furthermore, the findings revealed that culture specific coping had no relationship with psychological distress and Negative Self-esteem, and was marginally associated with Positive Self-esteem.

Discussion of Hypothesis #1 and Hypothesis #2– Perceived stress (general life stress), HIV disease related stress, psychological well being and psychological distress.

The first two research hypotheses covered four areas of inquiry, namely general life stress, HIV disease related stress, psychological well being and psychological distress. The primary focus centered on understanding the relationship between general life stress as measured by the Perceived Stress Scale-10 item (PSS) and psychological well being and psychological distress as measured by the Mental Health Inventory (MHI). The secondary focus of these hypotheses explored the contribution of HIV disease related stress as measured by the HIV/AIDS Stress Scale to psychological well being and psychological distress.

To test these hypotheses two hierarchical regression analyses were conducted with general life stress and HIV disease related stress serving as predictor variables and psychological well being and psychological distress as the criterion variables. The first

step of the first hierarchical regression explored the contribution of general life stress, as measured by the Perceived Stress Scale-10 item (PSS) to psychological well being, and the second step examined the contribution of HIV disease related stress, as measured by the HIV/AIDS Stress Scale, to psychological well being over and above that of general life stress. The regression analysis revealed that general life stress indeed contributed to psychological well being and that a negative relationship existed between psychological well being and general life stress, meaning the more general life stress experienced, the less the feelings and thoughts of psychological well being experienced. Furthermore, the regression analysis revealed that when controlling for general life stress, HIV disease related stress was a predictor of psychological well being, with a negative relationship existing between HIV disease related stress and psychological well being. This result implies that the more HIV disease related stress one experiences the less likely one is to report feelings and thoughts of psychological well being. The result further indicates that HIV disease related stress is indeed a predictor of lower psychological well being even when controlling for the effects general life stress has on psychological well being.

To test the second hypothesis that perceived stress scores as measured by the PSS and HIV disease stress scores as measured by the HIV/AIDS Stress Scale would be associated with psychological distress scores, a second hierarchical regression analysis was conducted with predictor variables being general life stress and HIV disease related stress, and criterion variable being psychological distress. Step one of this hierarchical regression explored the contribution of general life stress, as measured by the Perceived Stress Scale (PSS), to psychological distress and step two examined the contribution of HIV disease related stress, as measured by the three HIV/AIDS Stress Subscales (HIV

Instrumental stress, HIV Emotional/Existential stress, HIV Social stress) to psychological distress greater than that of general life stress. The regression analysis revealed that, general life stress indeed contributed to psychological distress and that a positive relationship exists between psychological distress and general life stress, meaning the more general life stress experienced the more the feelings and thoughts of psychological distress experienced. Furthermore, when controlling for general life stress, HIV disease related stress was a predictor of psychological distress, with a positive relationship existing between HIV disease related stress and psychological distress. The results of the present study indicate that there is indeed a relationship between general life stress and psychological distress, and that an increase in general life stress leads to an increase in psychological distress. Furthermore, an increase in general life stress does not only lead to a decrease in psychological well being but also an increase in psychological distress. These findings are consistent with a large body of literature that has previously established the relationship between stress, psychological well-being and psychological distress, (Leserman, et. al., 1999, Ginsburg, Solomin, & Bleich, 2002, Feist-Price, & White, 2003, Hand Phillips, Dugeon, & Skelton, 2005, Miller, 2007, Pieterse & Carter, 2007). The findings of the current study indicate that these relationships might also hold true for HIV infected women of African descent.

As with general life stress, HIV stress also was shown to have a relationship with psychological well being with an increase in HIV stress leading to a decrease in psychological well being. However a closer examination of this relationship, shows that it is specifically HIV instrumental stress, the stress that comes with difficulties surrounding HIV and everyday life, i.e. having healthcare, or because of HIV not being able to

provide for oneself and/or for one's family, that impacts psychological well being negatively, meaning the more HIV instrumental stress, the lower the psychological well being. A possible explanation for this result could lie in the sample characteristics. The sample was recruited from the Washington DC Metropolitan area community. It could possibly be that for this sample, stress about day-to-day living, i.e. housing, feeding themselves and their families, and safety issues, takes precedence over stress related to their HIV infection because more than two thirds (69.7%) identified as lower class or working class. This sample characteristic is congruent with what the current literature indicates to be a trend in HIV infection rates, namely that it is women and the poor that are mostly at risk of being infected with HIV. African American women are more affected by HIV than any other racial group in the United States of America (Bradley-Springer, 2008, Gilbert, Goddard, 2007) and disproportionately in lower income groups. Furthermore, when examining the relationship between HIV disease related stress and psychological distress, it is HIV emotional/existential stress that is shown to have an impact on psychological distress. Based on this result, one could argue that the more the individual struggles emotionally with their HIV diagnosis, the more he/she is likely to report psychological distress. The measure of psychological distress used in this study largely reflects experiences of anxiety and depression.

The results of this study lend support to the interactional model of stress (Lazarus & Folkman, 1984). In this instance therefore, it could be argued that stress associated with HIV is appraised through the lens of everyday stressors associated with race, socio-economic status and living circumstances, resulting in the HIV disease related stressors being appraised as less stressful, or less immediate. For instance, poor adherence to

treatment may be due to lack of living conditions that would support adherence, e.g. when an individual finds themselves being homeless, taking medication is less of a priority over finding a place to live, and food to eat. An important note is that the appraisal of HIV disease stress could also be influenced by current health status, for example, the respondent is currently battling an opportunistic infection or they are having medication side effects such as fatigue or nausea, which the current study did not measure. Finally the present study is based on the cognitive appraisal model of stress and coping. The cognitive appraisal model of stress purports that the way the individual perceives a situation may be more important to psychological well-being than the actual presence of stress, (Lazarus & Folkman, 1984, Joseph & Brough, 2002). Therefore the appraisal of the stressor influences the results. But the current study did not measure appraisal or its role as a possible mediator between stress and coping. The foci of the present study are cultural specific coping styles and psychological well-being. Cognitive Appraisal of stress is an assumption that this research is based on an assumption gleaned from the literature on stress and coping. Furthermore, the measures used in the current study to measure stress and coping use the cognitive appraisal paradigm. For the coping measures the respondents were asked to describe a stressful situation and then base their responses on the subjective narrative of what they deemed a stressful situation.

Women that are HIV infected come largely from a poor, urban population. This therefore has a direct effect on the access they have to health care; housing; and being able to provide for their families; their living environment (e.g. dangerous neighborhoods) which impacts their quality of life, which in turn affects psychological well being and psychological distress, and therefore their disease progression. A possible

explanation for the lack of resources in poor, urban populations could lie within structural racism. HIV infected women report sources of stress to be housing, finances, and taking care of their families. This could possibly be an explanation for why women who report higher HIV instrumental stress also report lower psychological well being. In other words when women in this population are asked about their psychological happiness it pulls for 'worries' about family and everyday living. This finding supports what the literature has indicated to be important sources of stress for HIV infected women, i.e. stress about everyday living. However when these women are asked about their sadness, i.e. psychological distress, their reactions pull from existential concerns, e.g. will they be there tomorrow to take care of their children? In other words, being able to take care of their families and provide for them is what adds to HIV infected African America womens' sense of well-being. The worry about whether they will be alive 'tomorrow' is what adds to their distress.

Discussion of Hypothesis #3 and Hypothesis #4 – Africentric coping style, general coping style and psychological well being

The next two hypotheses focused on the impact of coping on psychological well being. namely the impact Africentric coping styles, as measured by the Africentric Coping Style Inventory (ACSI), have on psychological well being as measured by the Mental Health Inventory (MHI), and whether Africentric coping styles are predictive of psychological well being when controlling for general coping styles as measured by The Ways of Coping Questionnaire (WCQ). To test these hypotheses a third step was added to the first hierarchical regression analysis - general coping styles (as measured by the four subscales of the WCQ - positive reappraisal, escape-avoidance, seeking social

support, and distancing) serving as the predictor variable, with psychological well being serving as the criterion variable. At Step four Africentric coping styles (as measured by the four subscales of the ACSI: cognitive emotional debriefing, spiritual centered coping, collective coping and ritual centered coping) were added, serving as the predictor variable with psychological well being the criterion variable, whilst controlling for the effects of general coping styles on psychological well being. The regression analysis revealed that making use of general coping styles contributed to thoughts and feelings of psychological well being. However a closer read of the results indicate that of the four WCQ subscales, only positive reappraisal significantly contributed to psychological well being with the relationship being a positive one, meaning that the more the individual made use of positive reappraisal as a coping style, the more they reported thoughts and feelings of psychological well being. Positive reappraisal here points to the individual taking the stressor and reframing it in a positive way, so for instance, it is not uncommon to hear HIV infected individuals talk about HIV as their 'wake up call' to live a healthier life and take care of themselves and those around them. In like manner Demmer (2007), found that individuals impacted by the HIV/AIDS epidemic in South Africa had better psychological outcomes when they used a positive reconstruction to make sense of their experience. Therefore the present result further underscores previous results in the literature that shows that HIV infected persons who use coping strategies that can be characterized as active, do better adjusting to having a HIV diagnosis (Platter & Meiring, 2007, Burgess, Carrateo, Elkington, Pasqual-Marsettin, Lobaccaro & Catalan, 2000, Fleishman & Fogel, 1994, Remien & Katoff, 1992).

However, the results indicated that Africentric coping styles only significantly contribute to a small amount of the variance in psychological well being. Even though the relationship was significant, none of the individual coping styles had a significant relationship with psychological well being, leaving it unclear as to what the exact relationship is between Africentric coping styles and psychological well being. Potential explanations for these findings can be understood from both an empirical and a conceptual perspective. A plausible explanation for this result could lie in the multicolinearity between the two coping measures, high correlation between the general coping subscales and that of the cultural Africentric specific subscales. This can point to the fact that there is not enough distinction between the two coping measures. What constitutes African American cultural specific coping styles are not clearly distinguished from what constitutes general coping styles, according to these measures. This resemblance could possibly be in part because African American coping styles are similar to that of general coping styles and because of acculturation, the Africentric nature of African American culture has been assimilated into western European/American culture; or it could be an indication that the difference between African American coping styles are much more nuanced and therefore a measure is needed that can capture this nuance. Of importance also to note is that the cultural specific coping behaviors are not unique in and of themselves but that it is the clustering of them that are unique and express the cultural specific experience.

It could also be that an Africentric worldview does not fit the present population sampled, namely an urban, poor, African American, HIV infected population. Possible reasons for the weak results found in this population when looking at Africentric coping

could be that for this population, i.e. urban, poor, HIV infected African American women, being African is not salient to their identity their American identity is more salient than their African identity. The present study did not measure Africentric identity and therefore cannot answer the question whether or not being African is salient for this population. Another possible explanation for the fact that Africentric coping styles, such as community centered coping, did not show a significant relationship to psychological well being in the present study could be the nature of the stressor under scrutiny. HIV carries with it a significant stigma (Buseh, & Stevens, 2007), that leads to a powerful code of silence. Individuals are less likely to make use of group or community support for fear of disclosure of their health status. It could therefore be that part of why individuals do not utilize coping styles that are group oriented in nature, is fear of disclosure of HIV positive status.

A third possible reason that extends from the previous reason, why in the present study a very weak and unclear finding was obtained between the Africentric Coping Style Inventory and psychological well-being and psychological distress, could be in the population under study. The ACSI has not previously been used on HIV infected women. The ACSI has been previously used with African American college and high school samples, but not with HIV infected women. It could therefore be that the instruments are not appropriate for this population given the stigma associated with HIV and resultant secrecy surrounding HIV status.

General Discussion of Results

The results of the present study are similar to results reported in the literature that HIV-positive African American women, who have higher levels of stress, have less

psychological well being. As with the present study the literature also shows that coping is negatively associated with psychological distress (Burns, Feaster, Mitrani, OW, & Szapocznik, 2008). The present results indicate within general coping styles, positive reappraisal has a relationship with psychological well being, meaning that the more the individual makes use of positive appraisal as a means of coping, the better they do in the area of psychological well being. Furthermore, cultural specific coping styles had a small effect on psychological well being. The present study further investigated the influence stress; both general life stress and HIV stress, have on positive self-esteem and to see the effects coping styles have on this relationship. The results indicate that both general life stress and HIV stress have an influence on positive self-esteem, with the more stress the less positive self-esteem. However, the results indicated that coping styles had an influence on positive self-esteem, with collective coping having the strongest influence on positive self-esteem. This result is consistent with results in the literature.

The fact that the present study did not replicate the results of previous studies that used the ACSI to measure coping and psychological well being or the HIV/AIDS stress scale to measure disease related stress, suggests that these measures might not be sensitive when applied to the population under examination in the current study.

Limitations of the Study

Although a goal of the present study was to see if the impact of Africentric coping in HIV infected Black woman would yield practical implications for use in the clinical setting, several limitations of this study indicate caution. Self report rating scales were the only source of data collection for the present study. Self report methods often reduce generalizability given its convenience and potential tendency toward social desirability in

responses. The literature widely cautions against this method as the only source of data collection because of the confounding effect of common method variance, such as the influence of the respondent's mood state; common scale formats, i.e. using Likert scale on all measures; social desirability, and scale length; all of which influence how the subject responds to the questions posed on the scales (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). The present study used measures that all made use of a Likert rating scale. There were six measures, totaling 30 pages. It is therefore conceivable that the above response structure of the measures could have influenced the results of the study, thus leading to the misinterpretation of spurious relationships as true relationships due to the presence of a common "third" variable that is not being measured but which has been introduced due to the research methodology, or internal validity.

A second reason to caution against generalizability is that the present study made use of non-random, convenient sampling in a limited geographical area. The sample was recruited by word of mouth and the distribution of flyers in the DC Metropolitan area. The sample character-istics therefore conform to an urban, Mid-Atlantic population, which limits the results to other populations in the United States including the area from which the sample was taken. The decision not to include demographic variables in the analysis could result in the impact of latent variables, such as age, and education, not being accounted for. Latent variables are described as variables that have an indirect effect on the relationship under study.

A further limitation of the measures and the study is how much conceptualization reflects the individualism versus collectivism discrepancy and a flaw between what this study is trying to accomplish and the measures employed to test them. Also the current

study uses instruments that are based on both the collective worldview and the individual worldview when measuring coping, but not when measuring outcome variable. Could it also be that the African American experience lies somewhere between individualism and collectivism?

Another limitation lies in the fact that the Ways of Coping Questionnaire and the Africentric Coping Style Inventory both request the respondents to describe a generic stressor and then to base their answers on the stressor described. Respondents were not instructed to give an HIV specific stressor as a stress descriptor; therefore it cannot be assumed that their coping was directly related to their HIV status. Future studies need to link their coping responses to their HIV status.

While recognizing that the limitations of the current study means the results be interpreted with some caution, the findings do however highlight the need to consider the impact general life stress and HIV disease related stress have on the psychological well being and psychological distress in women of African descent that are HIV infected. It further highlights the need that when addressing psychological well being and psychological distress with this population, researchers need to take into account the coping styles used by them and how to best work within this framework to further their well being.

Clinical Implications and Future directions

The present research is merely a first step in trying to understand the relevance of culture in coping with a chronic disease, in this case HIV in women of African descent. An understanding of the correlates of coping can better inform the design of interventions to improve psychological outcomes in HIV infected individuals. A possible way forward

could be to conduct a qualitative study that enables the women to tell their stories and then, using grounded theory or narrative analysis, come to another understanding of the correlates that make up their coping styles.

In addition, further research based in a cultural context is needed to explore the coping styles used by black women who are HIV infected (Demmer, 2007, Buseh, & Stevens 2007). Beatty, Wheeler & Gaiter (2004), argue that researchers who work with African American samples, need to use conceptual frameworks, hypotheses and analyses that are specific to the experience or sociocultural context of African Americans. Fitzpatrick, et.al.(2004), state that while medical science moves forward with the development of better tests and treatments, their effectiveness will be limited unless culturally appropriate behavioral and mental health interventions and tools move forward. Understanding the cultural context of successful coping behavior in HIV infected women of African descent living in the USA, can in turn help with the development of successful interventions that address psychological well being, adherence to treatment, and HIV/AIDS prevention in this population.

Lastly, the result of the present study calls for the development of a coping measure to be used with an African American population that not only uses an Africentric worldview as its point of departure but also incorporates the nuances that come with acculturation to a western philosophy, a measure that will truly reflect the experience of being African American in the USA. So for instance, a measure such as this might hypothetically include both African centered worldview constructs such as social/community support, family, spirituality, and rituals, as well as that which are more individually oriented such as feelings of self-efficacy, problem solving and distancing

that are more individually oriented and therefore reflect more accurately the experience of being African American, i.e. being a people of African descent living in America.

In closing, the deleterious impact HIV/AIDS have had on the African American community cannot be underscored strongly enough. The African American community, already under siege from racism, poverty, health disparities and violence, now also has to deal with the effects of a disease that has reached epidemic proportions. There is a growing need to address the multiplicity of psychosocial stressors that accompany HIV stress (Roberts, & Miller, 2004). Roberts and Miller (2004), go on to argue that psychologists and other mental health professionals are needed to intervene to mitigate the adverse psychological consequences related to living with HIV/AIDS. In order to provide strength based services to HIV infected African American women, psychologists and other mental health providers need to take into account the coping behaviors employed by this population. Furthermore, any ethical treatment of this population will acknowledge and address poverty, racism, lack of healthcare access, and unemployment as barriers to quality of life. African American women that are HIV infected have to deal with racism, sexism, classism, and the stigma that comes with being HIV infected. Often the factors that put them at risk for HIV infection are the same factors they have to deal with as HIV infected. Researchers and mental healthcare providers would do well to take all these into account when dealing with this population.

Table 1

Summary of self-reported Demographic Information (n = 165)

Demographic Variable	Percent	N
Ethnicity		
African American	94.5	156
Puerto Rican	.6	1
Other Caribbean	.6	1
African	1.2	2
Other	1.2	2
Missing	1.8	3
Socioeconomic Status		
Lower class	37.6	62
Working class	32.1	53
Middle class	24.8	41
Upper Middle class	3.6	6
Missing	1.8	3
Religious Affiliation		
Baptist	46.1	76
Christian	18.8	31
Catholic	15.2	25
Other	13.3	22
Protestant	2.4	4
Muslim	1.2	2
Buddhist	.6	1
Missing	2.4	4
Sexual Orientation		
Heterosexual	90.3	149
Lesbian/Homosexual	6.1	10
Bisexual	2.4	4
Missing	.6	1
Time since HIV diagnosis in years		
0 – 5	26.6	44
6 – 10	21.8	36
11 – 15	19.3	32
16 – 20	20.0	33
21 – 25	7.8	13
> 25	.6	1
Missing	3.6	6

Table 2
Reliability Coefficients and Descript Statistics of Variables under Examination

Variable	alpha	M	SD	Range
PSS	.71	22.35	6.29	2 – 40
PSW	.92	57.11	13.88	18 – 83
PSD	.92	64.71	20.49	29 – 128
HAPPINESS	.77	8.43	1.98	3 – 11
PosSE	.78	10.47	1.66	3 – 12
NegSE	.74	10.77	3.58	6-20
COGEMDEB	.82	17.49	7.35	2 - 33
SPIRICENT	.82	16.35	5.62	4 - 24
COLLECT	.83	14.48	5.79	1 - 24
RITCENT	.76	2.82	2.88	0 - 9
HSOCSTRS	.884	9.67	9.02	0 - 35
HINSSTRS	.80	5.09	5.24	0 - 21
HEMOSTRS	.87	9.14	6.93	0 - 28
POSREAP	.80	13.88	4.88	0 - 21
ESCAVOID	.75	10.11	5.10	0 - 23
SSOCSPR	.72	10.95	4.12	1 - 18
DISTANC	.65	8.33	3.80	0 - 18

PSS = perceived stress; PSW = Psychological Well being; PSD = Psychological Distress; HAPPINESS =Happiness; PosSE = Positive Self-esteem; COGEMDEB =Cognitive Emotional Debriefing; SPRICENT = Spiritual Centered Coping; COLLECT = Collective Coping; RITCENT = Ritual Centered Coping; HSOCSTRS = HIV Social Stress; HINSSTRS = HIV Instrumental Stress; HEMOSTRS = HIV Emotional/Existential Stress; POSREAP = Positive Reappraisal; ESCAVOID = Escape-Avoidance; SSOCSPR = Seeking Social Support; DISTANC = Distancing

Table 3

Correlation Matrix for all Study Variables

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.
1. PSS	1																
2. PSD	-.41**	1															
3. PSW	-.21**	-.56**	1														
4. HAPPINESS	-.13	-.51**	.61**	1													
5. PosSE	-.12	-.41**	-.46**	.43**	1												
6. NegSE	.14	.50**	-.47**	-.39**	-.32**	1											
7. COGEMDEB	.12	.07	.23**	.14	.14	.11	1										
8. SPIRICENT	.07	-.08	.25**	.16*	.15	.35	.47**	1									
9. COLLECT	-.02	-18*	.39**	.23**	.31**	-.11	.58**	.57**	1								
10. RITCENT	.04	.14	.06	-.03	-.03	.06	.41**	.34**	.29**	1							
11. HSOCSTRS	.30**	.60**	-.46**	-.40**	-.38**	.41**	.12	-.07	-.12	.24**	1						
12. HINSSTRS	.31**	.56**	-.47**	-.37**	-.38**	.39**	.11	-.04	-.16*	.21**	.75**	1					
13. HEMOSTRS	.37**	.64**	-.43**	-.43**	-.35**	.43**	.23**	.04	-.05	.16*	.84**	.75**	1				
14. DISTANC	.17*	.18*	.12	.04	-.02	.08	.48**	.22**	.33**	.22**	.12	.14	.21**	1			
15. SSOCSPR	.06	-.02	.30**	.10	.16*	.01	.50**	.48**	.64**	.28**	-.07	-.09	.05	.44**	1		
16. ESCAVOID	.33**	.58**	-.20*	-.24**	-.17*	.37**	.37**	.18*	.09	.30**	..42**	.34**	.47**	.51**	.31**	1	
17. POSREAP	.12	-.14	.40**	.23**	.23**	-.15	.46**	.52**	.51**	.21	-.10	-.13	.01	.41**	.47**	.52**	1

**p <.05; ** p <.01. PSS = perceived stress; PSW = Psychological Well being; PSD = Psychological Distress; HAPPINESS =Happiness; PosSE = Positive Self-esteem; NegSE=Negative Self-esteem; COGEMDEB =Cognitive Emotional Debriefing; SPRICENT = Spiritual Centered Coping; COLLECT = Collective Coping; RITCENT = Ritual Centered Coping; HSOCSTRS = HIV Social Stress; HINSSTRS = HIV Instrumental Stress; HEMOSTRS = HIV Emotional/Existential Stress; DISTANC = Distancing; SSOCSPR = Seeking Social Support; ESCAVOID = Escape-Avoidance; POSREAP = Positive Reappraisal*

Table 4

Hierarchical Regression Analyses of Psychological Well being on Perceived Stress and HIV stress *(n = 164)*

Variable	B	SEB	ß
Step 1			
Perceived stress	-.46	.17	.-21**
Step 2			
Perceived stress	-.10	.16	-.05
HIV instrumental stress	-.70	.29	-.26*
HIV social Stress	-.35	.21	-.23
HIV Emotional Stress	-.03	.27	-.02

*Step 1 R^2 = .04, F (1,163) = 7.16**; Step 2 ΔR^2 = .20, F (3,160) = 14.36**; * p <.05; ** p < .01*

Table 5

Hierarchical Regression Analyses of Psychological Distress on Perceived Stress and HIV stress *(n = 164)*

Variable	B	SEB	ß
Step 1			
Perceived stress	1.38	.24	.41**
Step 2			
Perceived stress	.67	.21	.20**
HIV instrumental stress	.55	.36	.14
HIV social Stress	.34	.25	.15
HIV Emotional Stress	.97	.34	.33**

*Step 1 R^2 = .17, F (1,163) = 33.95**; Step 2 ΔR^2 = .29, F (3,160) = 28.93** * p < .05; ** p < .01*

Table 6

Hierarchical Regression Analyses of Psychological Well being on Perceived Stress, HIV Stress, General coping and Africentric coping *(n = 164)*

Variable	B	SEB	ß
Step 1			
Perceived stress	-.45	.17	.-.20**
Step 2			
Perceived stress	-.10	.16	-.05
HIV social stress	-.35	.21	-.23
HIV instrumental stress	-.69	.28	-.26 *
HIV emotional stress	-.03	.27	-.02
Step 3			
Perceived stress	-.18	.15	-.08
HIV social stress	-.15	.19	-.09
HIV instrumental stress	-.46	.27	-.17
HIV emotional stress	-.28	.25	-.14
Seeking social support	.26	.29	.08
Distancing	.33	.29	.09
Positive Re-appraisal	.90	.25	.31**
Escape-avoidance	-.38	.29	-.14
Step 4			
Perceived stress	-.15	.15	-.07
HIV social stress	-.18	.19	-.12
HIV instrumental stress	-.45	.27	-.17
HIV emotional stress	.34	.25	.15
Seeking social support	-.14	.32	-.04
Distancing	.14	.30	.04
Positive Re-appraisal	.80	.26	.28**
Escape-avoidance	-.37	.23	-.14
Ritual centered coping	-.19	.35	.04
Spiritual centered coping	-.09	.21	-.04
Cognitive-emotional debriefing	.27	.17	.14
Collective coping	.38	.23	.15

*Step 1 R^2 = .04, F (1,163) = 7.16 *; Step 2 ΔR^2 = .20, F (3,160) = 14.36 **; Step 3 ΔR^2 = .15, F (4,156) = 9.30**Step 4 ΔR^2 = .04, F (4,152) = 2.55** p <.05; ** p < .01*

Table 7

Hierarchical Regression Analyses of Psychological Distress on Perceived Stress, HIV Stress, General coping and Africentric coping *(n = 164)*

Variable	B	SEB	ß
Step 1			
Perceived stress	1.37	.24	.41**
Step 2			
Perceived stress	.67	.21	.20**
HIV social stress	.34	.26	.15
HIV instrumental stress	.55	.36	.14
HIV emotional stress	.96	.34	.23**
Step 3			
Perceived stress	.54	.19	.16**
HIV social stress	.08	.24	.03
HIV instrumental stress	.44	.33	.11
HIV emotional stress	.83	.31	.28**
Seeking social support	-.05	.36	-.03
Distancing	-.16	.36	.08
Positive Re-appraisal	-.88	.31	-.21**
Escape-avoidance	1.64	.28	.40**
Step 4			
Perceived stress	.53	.19	.16**
HIV social stress	.03	.24	.20**
HIV instrumental stress	.41	.33	.10
HIV emotional stress	.92	.33	.31**
Seeking social support	.21	.40	.04
Distancing	-.06	.37	-.041
Positive Re-appraisal	-.73	.33	-.17*
Escape-avoidance	1.64	.29	.40**
Ritual centered coping	.22	.44	.03
Spiritual centered coping	-.14	.26	-04
Cognitive-emotional debriefing	.25	.21	-.04
Collective coping	-.18	.29	-.05

*Step 1 R^2 = .17, F (1,163) = 33.95 **; Step 2 ΔR^2 = .29, F (3,160) = 28.93**; Step 3 ΔR^2 = .13, F (4,156) = 11.92**Step 4 ΔR^2 = .01, F (4,152) = 1.00,ns*
** p <.05; ** p < .01*

Table 8

Hierarchical Regression Analyses of Positive Self-Esteem on Perceived Stress HIV stress, general coping and Africentric coping *(n = 164)*

Variable	B	SEB	ß
Step 1			
Perceived stress	-.03	.02	-.12
Step 2			
Perceived stress	.01	.02	.02
HIV social stress	-.04	.03	-.21
HIV instrumental stress	-.07	.04	-.21
HIV emotional stress	-.01	.03	-.02
Step 3			
Perceived stress	.00	.02	.00
HIV social stress	-.03	.03	-.15
HIV instrumental stress	-.05	.04	-.16
HIV emotional stress	-.09	.04	-.07
Seeking social support	.02	.04	.05
Distancing	-02	.04	-.05
Positive Re-appraisal	.06	.04	.19
Escape-avoidance	-.02	.03	-.05
Step 4			
Perceived stress	.00	.02	.01
HIV social stress	-.03	.03	-.16
HIV instrumental stress	-.04	.04	-.12
HIV emotional stress	-.02	.04	0.09
Seeking social support	-.04	.04	0.09
Distancing	-.05	.04	-.12
Positive Re-appraisal	.06	.04	.17
Escape-avoidance	-.00	.03	-.01
Ritual centered coping	-.01	.05	-.02
Spiritual centered coping	-.03	.03	-.08
Cognitive-emotional debriefing	.03	.02	.11
Collective coping	.08	.03	.27*

Step 1 R^2 = .01, F (1,163) = 2.53, ns; Step 2 ΔR^2 = .15, F (3,160) = 9.72**; Step 3 ΔR^2 = .04, F (4,156) = 1.88, ns; Step 4 ΔR^2 = .05, F (4,152) = 2.70 * * p <.05; ** p < .01*

Table 9

Hierarchical Regression Analyses of Negative Self-Esteem on Perceived Stress HIV stress, general coping and Africentric coping *(n = 164)*

Variable	B	SEB	ß
Step 1			
Perceived stress	.08	.05	.14
Step 2			
Perceived stress	-.02	.04	-.03
HIV social stress	.05	.06	.12
HIV instrumental stress	.07	.07	.11
HIV emotional stress	.14	.07	.26
Step 3			
Perceived stress	-.03	.04	-.05
HIV social stress	.03	.05	.05
HIV instrumental stress	.06	.08	.09
HIV emotional stress	.12	.07	.23
Seeking social support	.08	.08	.09
Distancing	-.05	.08	-.05
Positive Re-appraisal	-.17	.07	-.23*
Escape-avoidance	.19	.07	.27**
Step 4			
Perceived stress	-.03	.04	-.05
HIV social stress	.05	.06	.13
HIV instrumental stress	.05	.08	.08
HIV emotional stress	.08	.08	.15
Seeking social support	.12	.09	.14
Distancing	-.03	.08	-.03
Positive Re-appraisal	-.21	.76	-.28 **
Escape-avoidance	.18	.07	.25
Ritual centered coping	-13	.10	-.10
Spiritual centered coping	.11	.06	.16
Cognitive-emotional debriefing	.05	.05	.10
Collective coping	-.10	.07	-.15

*Step 1 R^2 = .02, F (1,163) =3.09, ns; Step 2 ΔR^2 = .18, F (3,160) = 12.18 **; Step 3 ΔR^2 = .07, F (4,156) = 3.92 **; Step 4 ΔR^2 = .0, F (4,152) = 1.35 ns*
** p <.05; ** p < .01*

Appendix A
Demographic sheet

Demographic Data / Personal Data Form

Please complete all the following information:

1. Age (years) _____

2. Gender (Circle one)
   Female Male

3. Race (Circle one)
   Black White Asian Other (please write in) _____

4. Ethnicity (Nationality) (Circle one)
   African American Puerto Rican
   Dominican Haitian
   Other Caribbean (please specify) _____
   African
   Other (please write in) _____

5. Were you born in the USA? (Circle one)
   Yes No

6. Was your mother born in the USA? (Circle one)
   Yes No

7. Was your father born in the USA? (Circle one)
   Yes No

8. Religion (Circle one)
   Catholic Baptist Muslim
   Christian Protestant Buddhist
   Other (please write in) _____

9. Level of Education (Circle one)
   Grade School (1st through 8th grade)
   High School (9th through 12th grade)
   Some college (Took some courses but did not complete degree)
   Community College Degree
   Vocational Training (please write in) _____
   Four Year College Degree

Graduate School
Post-graduate Training

10. Socio-economic status (Circle one)
    Lower class
    Working class
    Middle class
    Upper middle class
    Upper class

11. Income level per year (Circle one)
    $0 - $14,000
    $15,000-$24,000
    $25,000-$39,000
    $40,000-$59,000
    $60,000-$99,000
    $100,000+

12. Occupation (please write in) _____

13. Current employment status (Circle one)
    Full time (40 hours per week)
    Part time (less than 40 hours per week)
    Casual/Per Diem
    Unemployed

14. Marital Status (Circle one)
    Never married
    Separated/Divorced
    Living with partner
    Married

15. Sexual orientation (Circle one)
    Heterosexual
    Lesbian/Homosexual
    Bisexual

16. Are you sexually active? (Circle one)
    Yes No

17. Relationship Satisfaction (Circle one)
    Not at all
    A little satisfied
    Somewhat satisfied
    Satisfied
    Very satisfied

18. Number of children (Circle one)
    0-2
    3-5
    6-8
    9-11
    11+

19. Household size (number of people living in the household including you) (Circle one)
    0-3
    4-6
    7-9
    10+

20. Time since HIV diagnosis
    How long since you have been diagnosed as having HIV?
    _____ months

21. Have you ever been diagnosed as having AIDS? (Circle one)
    Yes No

22. Have you ever had any opportunistic infections? (Circle one)
    Yes No
    If yes, how many? _____

23. Have you ever had a CD4 cell depletion of less than 200/mm^3? (Circle one)
    Yes No

Appendix B
Stress Measures:
Perceived Stress Scale-10 item

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

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

1. In the last month, how often have you been upset because of something that happened unexpectedly?	0	1	2	3	4
2. In the last month, how often have you felt that you were unable to control the important things in your life?.....	0	1	2	3	4
3. In the last month, how often have you felt nervous and "stressed"?	0	1	2	3	4
4. In the last month, how often have you felt confident about your ability to handle your personal problems?	0	1	2	3	4
5. In the last month, how often have you felt that things were going your way?.....	0	1	2	3	4
6. In the last month, how often have you found that you could not cope with all the things that you had to do?	0	1	2	3	4
7. In the last month, how often have you been able to control irritations in your life?.....	0	1	2	3	4
8. In the last month, how often have you felt that you were on top of things?...	0	1	2	3	4
9. In the last month, how often have you been angered because of things that were outside of your control?	0	1	2	3	4
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?.....	0	1	2	3	4

Appendix C
Stress Measures:
HIV/AIDS STRESS SCALE

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Below is a list of problems that people who have HIV/AIDS sometimes have. For each problem category there are two examples which further describe the problem. **Your own** examples may be somewhat **different** from the ones provided, so long as they seem to you to be examples of the problem category you are being asked to rate. In order to endorse a problem it must be in someway be related to HIV. That is, the problem must at least in part be caused by or be exacerbated by being HIV infected. Please read each one carefully. After you have done so, please cross one of the numbers to the right that best describes HOW TROUBLESOME THAT PROBLEM HAS BEEN FOR YOU DURING THE PAST MONTH INCLUDING TODAY. Cross only one number for each problem and do not skip any items. If you change your mind erase your first mark carefully.

How much were you troubled by:	Not at all	A little bit	Moderately	Quite a bit	Extremely
1. **Distressing emotions related to HIV/AIDS** (e.g., you feel angry or fearful; you feel anxious or depressed)	0	1	2	3	4
2. **Relationship difficulties related to HIV/AIDS** (e.g., you have arguments with your support person about how to best care for your health; you have difficulty establishing a relationship	0	1	2	3	4
3. **Grief/bereavement related to HIV/AIDS** (e.g., you are concerned about your own losses such as loss of independence; you are grieving for the loss of a loved one from AIDS)	0	1	2	3	4

4. **Confidentiality/privacy concerns related to HIV/AIDS** (e.g., you are concerned about your HIV status breached; you are reluctant to tell other of your HIV/AIDS status)	0	1	2	3	4
5. **Sexual difficulties related to HIV/AIDS** (e.g., you're finding it hard to maintain safe sex behaviours; you are sexually frustrated)	0	1	2	3	4
6. **Difficulties in coming to terms with your HIV/AIDS status** (e.g., you can't accept that you have HIV/AIDS; you refuse to even think about your HIV/AIDS)	0	1	2	3	4
7. **Concerns about death related to HIV/AIDS** (e.g., you are preoccupied with dying; you don't think about the possibility that you may die from HIV/AIDS)	0	1	2	3	4
8. **Isolation related to HIV/AIDS** (e.g., you have less contact with others because of your HIV/AIDS; you don't get invited out much now that you have HIV/AIDS)	0	1	2	3	4
9. **Suicidal thoughts/attempts related to HIV/AIDS** (e.g., you have thoughts of ending your life; you have actually attempted to end your life)	0	1	2	3	4
10. **Increased drug/alcohol intake related to HIV/AIDS** (e.g., you use drugs and/or alcohol more now: you are often "high" or "drunk"	0	1	2	3	4

11. **Discrimination/stigma concerns related to HIV/AIDS** (e.g., you are concerned that you will be discriminated against because of your HIV/AIDS; you feel as if you have not been treated with respect)	0	1	2	3	4
12. **Religious/existential difficulties related to HIV/AIDS** (e.g., you are having difficulty searching for meaning in your life; you are struggling to make sense of the predicament you are in	0	1	2	3	4
13. **Overly attentive to bodily functions or changes** (e.g., you are constantly on the watch out for HIV-related symptoms; you are overly attentive to any new physical changes such as appearance of a rash	0	1	2	3	4
14. **Difficulties in telling others of your HIV/AIDS status** (e.g., you don't know who, how or when to tell of your HIV status; you have told only one or two people of your HIV status)	0	1	2	3	4
15. **Boredom related to HIV/AIDS** (e.g., you are unable to use your free time doing things you would normally enjoy; you often find yourself sitting about doing nothing)	0	1	2	3	4
16. **Difficulty dealing with HIV-related symptoms or illness** (e.g., you often have difficulty dealing with fatigue or nausea; you have pain and physical discomfort most of the time)	0	1	2	3	4

17. **Difficulty dealing with HIV-related symptoms or illness** (e.g., you often have difficulty dealing with fatigue or nausea; you have pain and physical discomfort most of the time)	0	1	2	3	4
18. **Difficulty with health care system** (e.g., you have difficulties in getting access to health services such as dentists or home care)	0	1	2	3	4
19. **Difficulties with treatment related to HIV/AIDS** (e.g. you have difficulties managing side effects from treatments; you can't decide on a treatment approach)	0	1	2	3	4
20. **Transport difficulties related to HIV/AIDS** (e.g., you have difficulty getting appropriate transport to places; public transport is physically demanding)	0	1	2	3	4
21. **Financial difficulties related to HIV/AIDS** (e.g. you are unable to pay debts; you have problems with superannuation payouts)	0	1	2	3	4
22. **Daily living difficulties related to HIV/AIDS** (e.g. you can't always do the shopping or cleaning; you can't keep up with the basic day-to-day chores)	0	1	2	3	4
23. **Reducing risk of infection** (e.g. you are preoccupied with thoughts about infecting others with HIV; you are concerned that some of the behaviours you engage in may infect others)	0	1	2	3	4

24. **Difficulty in accessing information related to HIV/AIDS** (e.g. you have received conflicting information on HIV/AIDS; you can't get adequate information on treatment)	0	1	2	3	4
25. **Employment difficulties related to HIV/AIDS** (e.g. you can't obtain/maintain employment because of illness; you are concerned about work-related stress)	0	1	2	3	4
26. **Legal problems related to HIV/AIDS** (e.g. you are involved in a legal process; you don't know who to assign power of attorney to)	0	1	2	3	4
27. **Planning difficulties related to HIV/AIDS** (e.g. uncertainty with your health makes career planning difficult; you don't know whether to start new projects)	0	1	2	3	4
28. **Difficulties with thinking processes related to HIV/AIDS** (e.g. you forget things more than usual; you can't concentrate as well as usual)	0	1	2	3	4
29. **Dealing with declining health related to HIV/AIDS** (e.g. you have difficulty in dealing with increasing physical restrictions due to declining health; you have difficulty dealing with the change from being well to having illness)	0	1	2	3	4

Appendix D
Coping Measures:

AFRICULTURAL COPING SYSTEMS INVENTORY
(**Utsey, 1999**)

Instructions

The statements below are intended to represent some of the ways people cope with stressful situations in their daily lives. In order to respond to the statements below you will need to think of a specific stressful situation that you have encountered within the past week or so. A "stressful situation" is any situation that you found troubling or otherwise caused you to worry. Such situations might have been related to your family, friends, school, job, romantic relationship, or other things you consider important in your life.

To help us understand the exact nature of the stressful situation you are thinking of when responding to the statements in this questionnaire, please take a moment to write a brief description of the situation in the space provided below.

Use this space to describe your stressful situation:

DID YOU REMEMBER TO DESCRIBE YOUR STRESSFUL SITUATION?

Now, keeping this situation in mind, please indicate the extent to which you used each of the strategies described on the following pages to help you cope with the stress you experienced.

Read each statement carefully, and then indicate by circling 0, 1, 2, or 3, to what extent you used it in your situation.
Key:

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

Please answer every question.

1.	Prayed that things would work themselves out.	0	1	2	3
2.	Got a group of family or friends together to help with the problem.	0	1	2	3
3.	Shared your feelings with a friend or family member.	0	1	2	3
4.	Remembered what a parent (or other relative) once said about dealing with these kinds of situations.	0	1	2	3
5.	Tried to forget about the situation.	0	1	2	3
6.	Went to church (or other religious meeting) to get help from the group.	0	1	2	3
7.	Thought of all the struggles Black people have had to endure and this gave me strength to deal with the situation.	0	1	2	3
8.	To keep from thinking about the situation I found other things to keep me busy.	0	1	2	3
9.	Sought advice about how to handle the situation from an older person in my family or community.	0	1	2	3
10.	Read a scripture from the Bible (or similar book) for comfort and/or guidance.	0	1	2	3

Key:

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

11. Asked for suggestions on how to deal with the situation during a meeting of my organization or club	0	1	2	3
12. Tried to convince myself that it wasn't that bad.	0	1	2	3
13. Asked someone to pray for me.	0	1	2	3
14. Spent more time than usual doing group activities.	0	1	2	3
15. Hoped that things would get better with time.	0	1	2	3
16. Read passage from a daily meditation book.	0	1	2	3
17. Spent more time than usual doing things with friends & family.	0	1	2	3
18. Tried to remove myself from the situation.	0	1	2	3
19. Sought out people I thought would make me laugh.	0	1	2	3
20. Got dressed up in my best clothing.	0	1	2	3
21. Asked for blessings from a spiritual or religious person.	0	1	2	3
22. Helped others with their problems.	0	1	2	3
23. Lit a candle for strength or guidance in dealing with the problem.	0	1	2	3
24. Sought emotional support from family and friends.	0	1	2	3
25. Burned incense for strength or guidance in dealing with the problem.	0	1	2	3
26. Attended a social event (dance, party, movie) to reduce stress caused by the situation.	0	1	2	3
27. Sang a song to myself to help reduce the stress.	0	1	2	3
28. Used a cross or other object for its special powers in dealing with the problem.	0	1	2	3
29. Found myself watching more comedy shows on TV.	0	1	2	3
30. Left matters in God's hands.	0	1	2	3

Appendix E
Coping Measures:
WAYS OF COPING (Revised)

Please read each item below and indicate, by using the following rating scale, to what extent you used it in the situation you have just described above.

	Not used	Used somewhat	Used quite a bit	Used a great deal
	0	1	2	3
1. I just concentrated on what I had to do next – the next step	0	1	2	3
2. I tried to analyze the problem in order to understand it better.	0	1	2	3
3. Turned to work or substitute activity to take my mind off things.	0	1	2	3
4. I felt that time would make a difference – the only thing to do was to wait.	0	1	2	3
5. Bargained or compromised to get something positive from the situation.	0	1	2	3
6. I did something, which I didn't think would work, but at least I was doing something.	0	1	2	3
7. Tried to get the person responsible to change his or her mind.	0	1	2	3
8. Talked to someone to find out more about the situation.	0	1	2	3
9. Criticized or lectured myself.	0	1	2	3
10. Tried not to burn my bridges, but leave things open somewhat.	0	1	2	3
11. Hoped a miracle would happen.	0	1	2	3
12. Went along with fate; sometimes I just have bad luck.	0	1	2	3

	Not used	Used somewhat	Used quite a bit	Used a great deal
	0	1	2	3
13. Went on as if nothing had happened.	0	1	2	3
14. I tried to keep my feelings to myself.	0	1	2	3
15. Looked for the silver lining, so to speak; tried to look on the bright side of things.	0	1	2	3
16. Slept more than usual.	0	1	2	3
17. I expressed anger to the person(s) who caused the problem.	0	1	2	3
18. Accepted sympathy and understanding from someone.	0	1	2	3
19. I told myself things that helped me to feel better.	0	1	2	3
20. I was inspired to do something creative.	0	1	2	3
21. Tried to forget the whole thing.	0	1	2	3
22. I got professional help.	0	1	2	3
23. Changed or grew as a person in a good way.	0	1	2	3
24. I waited to see what would happen before doing anything.	0	1	2	3
25. I apologized or did something to make up.	0	1	2	3
26. I made a plan of action and followed it.	0	1	2	3
27. I accepted the next best thing to what I wanted.	0	1	2	3
28. I let my feelings out somehow.	0	1	2	3
29. Realized I brought the problem on myself.	0	1	2	3

	Not used	Used somewhat	Used quite a bit	Used a great deal
	0	1	2	3
30. I came out of the experience better than when I went in.	0	1	2	3
31. Talked to someone who could do something concrete about the problem.	0	1	2	3
32. Got away from it for a while; tried to rest or take a vacation.	0	1	2	3
33. Tried to make myself feel better by eating, drinking, smoking, using drugs or medication, etc.	0	1	2	3
34. Took a big chance or did something very risky.	0	1	2	3
35. I tried not to act too hastily or follow my first hunch.	0	1	2	3
36. Found new faith.	0	1	2	3
37. Maintained my pride and kept a stiff upper lip.	0	1	2	3
38. Rediscovered what is important in life.	0	1	2	3
39. Changed something so things would turn out all right.	0	1	2	3
40. Avoided being with people in general.	0	1	2	3
41. Didn't let it get to me; refused to think too much about it.	0	1	2	3
42. I asked a relative or friend I respected for advice.	0	1	2	3
43. Kept others from knowing how bad things were.	0	1	2	3

	Not used	Used somewhat	Used quite a bit	Used a great deal
	0	1	2	3
44. Made light of the situation; refused to get too serious about it.	0	1	2	3
45. Talked to someone about how I was feeling.	0	1	2	3
46. Stood my ground and fought for what I wanted.	0	1	2	3
47. Took it out on other people.	0	1	2	3
48. Drew on my past experiences; I was in a similar situation before.	0	1	2	3
49. I knew what had to be done, so I doubled my efforts to make things work.	0	1	2	3
50. Refused to believe that it had happened.	0	1	2	3
51. I made a promise to myself that things would be different next time.	0	1	2	3
52. Came up with a couple of different solutions to the problem.	0	1	2	3
53. Accepted it, since nothing could be done.	0	1	2	3
54. I tried to keep my feelings from interfering with other things too much.	0	1	2	3
55. Wished that I could change what had happened or how I felt.	0	1	2	3
56. I changed something about myself.	0	1	2	3
57. I daydreamed or imagined a better time or place than the one I was in.	0	1	2	3
58. Wished that the situation would go away or somehow be over with.	0	1	2	3

	Not used	Used somewhat	Used quite a bit	Used a great deal
	0	1	2	3
59. Had fantasies or wishes about how things might turn out.	0	1	2	3
60. I prayed.	0	1	2	3
61. I prepared myself for the worst.	0	1	2	3
62. I went over in my mind what I would say or do.	0	1	2	3
63. I thought about how a person I admire would handle this situation and used that as a model.	0	1	2	3
64. I tried to see things from the other person's point of view.	0	1	2	3
65. I reminded myself how much worse things could be.	0	1	2	3
66. I jogged or exercised.	0	1	2	3

Appendix F
Measures of Psychological Well being:

MENTAL HEALTH INVENTORY FROM THE MEDICAL OUTCOMES STUDY

YOUR FEELINGS

These questions are about how you feel and how things have been with you during the **past month**. For each question, please circle a number for the **one** answer that **comes closest** to the way you have been feeling.

1. How happy, satisfied, or pleased have you been with your personal life during the past month?
(Circle One)

Extremely happy, could not have been more satisfied or pleased.....1
Very happy most of the time 2
Generally satisfied, pleased 3
Sometimes fairly satisfied, sometimes fairly unhappy.....4
Generally dissatisfied, unhappy.....5
Very dissatisfied, unhappy most of the time.....6

2. During the past month, how often did you feel there were people you were close to?
(Circle One)

Always 1
Very often.....2
Fairly often.....3
Sometimes.....4
Almost never.....5
Never.....6

3. During the past month, how often has feeling depressed interfered with what you usually do?
(Circle One)

Always 1
Very often.....2
Fairly often.....3
Sometimes.....4
Almost never.....5
Never.....6

4. How much of the time, during the past month, did you have difficulty reasoning and solving problems; for example, making plans, making decisions, learning new things?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

5. During the past month, how much of the time have you generally enjoyed the things you do?
(Circle One)

All of the time 1
Most of the time.....2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

6. How much of the time, during the past month, has your daily life been full of things that were interesting to you?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

7. During the past month, how much of the time have you felt loved and wanted?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

8. How much of the time, during the past month, have you been a very nervous person?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time.....3
Some of the time 4
A little of the time 5
None of the time 6

9. During the past month, how much of the time did you have difficulty doing activities involving concentration and thinking?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

10. During the past month, how much of the time did you feel depressed?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

11. During the past month, how much of the time have you felt tense or "high-strung"?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

12. During the past month, how much of the time have you been in firm control of your behavior, thoughts, emotions, and feelings?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

13. During the past month, how much of the time did you become confused and start several
actions at a time?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

14. During the past month, how much of the time did you feel that you had nothing to look forward to?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

15. How much of the time, during the past month, have you felt calm and peaceful?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

16. How much of the time, during the past month, have you felt emotionally stable? (Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

17. How much of the time, during the past month, have you felt downhearted and blue? (Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

18. How often have you felt like crying during the past month? (Circle One)

Always 1
Very often.....2
Fairly often.....3
Sometimes.....4
Almost never.....5
Never.....6

19. How much of the time, during the past month, did you feel left out? (Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

20. During the past month, how often did you feel that others would be better off if you were dead?
(Circle One)

Always 1
Very often.....2
Fairly often.....3
Sometimes.....4
Almost never.....5
Never.....6

21. During the past month, how much of the time did you forget, for example, things that happened recently, where you put things, appointments?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

22. During the past month, how much of the time did you feel that your love relationships, loving and being loved, were full and complete?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

23. How much have you been bothered by nervousness, or your "nerves," during the past month?
(Circle One)

Extremely so, to the point where I could not take care of things 1
Very much bothered 2
Bothered quite a bit.....3
Bothered some, enough to notice.....4
Bothered just a little 5
Not bothered at all 6

24. During the past month, how much of the time has living been a wonderful adventure for you?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

25. How much of the time, during the past month, have you felt so down in the dumps that nothing could cheer you up?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

26. During the past month, did you ever think about taking your own life?
(Circle One)

Yes, constantly 1
Yes, very often.....2
Yes, fairly often 3
Yes, a couple of times.....4
Yes, once.....5
No, never.....6

27. During the past month, how much of the time have you felt restless, fidgety, or impatient?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

28. During the past month, how much of the time have you been moody or brooded about things?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

29. During the past month, how often did you get rattled, upset, or flustered?
(Circle One)

Always 1
Very often.....2
Fairly often.....3
Sometimes.....4
Almost never.....5
Never.....6

30. How much of the time, during the past month, did you have trouble keeping your attention on any activity for long?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

31. During the past month, how much of the time have you been anxious or worried?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

32. During the past month, how much of the time have you been a happy person?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

33. How often during the past month did you find yourself having difficulty trying to calm down?
(Circle One)

Always 1
Very often.....2
Fairly often.....3
Sometimes.....4
Almost never.....5
Never.....6

34. During the past month, how much of the time have you been in low or very low spirits?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

35. How much of the time, during the past month, have you felt cheerful, lighthearted?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time 6

36. During the past month, how depressed (at its worst) have you felt?
(Circle One)

Extremely depressed.....1
Very depressed 2
Quite depressed 3
Somewhat depressed..... 4
A little depressed 5
Not depressed at all 6

37. How much of the time, during the past month, did you react slowly to things that were said or
done?
(Circle One)

All of the time 1
Most of the time 2
A good bit of the time 3
Some of the time 4
A little of the time 5
None of the time.....6

38. During the past month, how often did you feel isolated from others?
(Circle One)

Always 1
Very often.....2
Fairly often.....3
Sometimes.....4
Almost never.....5
Never.....6

Appendix G
Measures of Psychological Well-being:
Franklin Psychological Well being Index

Directions:

- Please read each statement.
- After each statement, indicate how you feel or how often it is true for you by choosing one of the answers listed.
- If you wish to comment further, please do so n the extra paper provided at the back. Please indicate the question number you are commenting upon.
- Please answer each question.
- Remember your answers will be kept confidential.

Thank You.

1. In general how satisfied are you with your life as a whole these days? Would you say you are:

☐ Very Satisfied ☐ Somewhat satisfied

☐ Somewhat Dissatisfied ☐ Very Dissatisfied

2. Taking all things together, how would you say things are these days? Would you say you are:

☐ Very Happy ☐ Pretty Happy

☐ Not Too Happy

3. How satisfied are you with your family life, that is, the time you spend wand things you do with members of your family? Would you say that you are:

☐ Very Satisfied ☐ Somewhat satisfied

☐ Somewhat Dissatisfied ☐ Very Dissatisfied

4. I am a useful person to have around.

☐ Almost Always True ☐ Often True

☐ Not Often True ☐ Never True

5. I am a person of worth.

☐ Almost Always True ☐ Often True

☐ Not Often True ☐ Never True

6. As a person I do a good job these days.

☐ Almost Always True ☐ Often True

☐ Not Often True ☐ Never True

7. I feel I can't do anything right.

☐ Almost Always True ☐ Often True

☐ Not Often True ☐ Never True

8. I feel my life is not very useful.

☐ Almost Always True ☐ Often True

☐ Not Often True ☐ Never True

9. I feel I do not have much to be proud of.

☐ Almost Always True ☐ Often True

☐ Not Often True ☐ Hardly Ever True

☐ Never True

10. How often do you feel bad about yourself?

☐ Very Often ☐ Fairly Often

☐ Not Too Often ☐ Hardly

☐ Never

11. Over the past month or so have you had money problems?

☐ No (skip question 12) ☐ Yes (go to question 12)

12. How much did that upset you?

☐ A Great Deal ☐ A Lot

☐ Only A Little ☐ Not At All

13. Over the past month or so have you had a job problem?

☐ No (skip question 14) ☐ Yes (go to question 14)

14. How much did that upset you?

☐ A Great Deal ☐ A Lot

☐ Only A Little ☐ Not At All

15. Compared to three (3) years ago, do you think you are now better off financially, about the same, or worse than you were three (3) years ago?

☐ Better ☐ Same

☐ Worse

16. How much do you worry that your total family income will not be enough to meet your family's expenses and bills?

☐ A Great Deal ☐ A Lot

☐ Only A Little ☐ Not At All

17. Given the chances you have had, how well have you done taking care of your family's wants and needs?

☐ Very Well ☐ Fairly Well

☐ Not Too Well ☐ Not Too Well At All

18. Given the chances you have had, how well have you done in the work or jobs you've had?

☐ Very Well ☐ Fairly Well

☐ Not Too Well ☐ Not Too Well At All

19. Given the chances you have had, how well have you done at being a good friend – a person your friends can count on?

☐ Very Well ☐ Fairly Well

☐ Not Too Well ☐ Not Too Well At All

20. Over the past month or so have you had family or marriage problems?

☐ No (skip question 21) ☐ Yes (go to question 20)

21. How much did that upset you?

☐ A Great Deal ☐ A Lot

☐ Only A Little ☐ Not At All

22. Over the past month or so, have you had problems with people outside your family?

☐ No (skip question 23) ☐ Yes (go to question 23)

23. How much did that upset you?

☐ A Great Deal ☐ A Lot

☐ Only A Little ☐ Not At All

24. Over the past month or so, have you had problems with your love life?

☐ No (skip question 25) ☐ Yes (go to question 25)

25. How much did that upset you?

☐ A Great Deal ☐ A Lot

☐ Only A Little ☐ Not At All

Thank you.

Appendix H

STUDY INFORMATION SHEET

TITLE OF STUDY: The relationship between Perceived Stress, HIV Stress, Africentric Coping Style and Psychological Well being in HIV infected Women of African Descent living in the USA.

PRINCIPAL INVESTIGATOR: Portia Pieterse, M.A.

INTRODUCTION

Dear Participant

My name is Portia Pieterse and I am a Doctoral student in Clinical Psychology at the City University of New York. The study described below, is part of my degree requirements in general, but in particular I think it is an important study for women of African descent (Black women) who are HIV positive. I would like you to be part of this research study. Before you decide, I want you to know why I am doing the study. I also want you to know about any risks (what might go wrong) and what you will have to do in the study. This form gives you information about the study. I will be happy to talk to you about the study and answer any questions you have. I will ask you to sign this form to show that you understand the study. It is important that you know:

- You do not have to join the study
- You may change your mind and drop out of the study any time you want
- If I make any important change to the study I will tell you about it and make sure you still want to be in the study.

A. PURPOSE OF STUDY/BACKGROUND INFORMATION

The purpose of this study is to investigate *how* women of African descent that are HIV positive *cope* with the daily stressors that life brings as well as how they cope with the particular stressors that come with being HIV positive. I would like to see how well these coping styles work and how well they protect against psychological distress.

B. PROCEDURE

1. Participants will be asked to complete a self-report survey. The surveys can be completed in groups or individually.

2. Completion of the survey should take anywhere between 45 minutes to an hour-and-a-half.

3. The surveys will ask about;

- the stressors you are currently experiencing,
- what you do to deal with these stressors,
- how you are currently feeling, and your satisfaction with life at the moment.

4. Whether you complete the survey in a group or individually will depend on your availability and preference.

C. POTENTIAL RISKS/DISCOMFORT

The risks to be involved in this study are minimal and may include feeling sad or anxious because you have to think about your HIV diagnosis, the stressors you are currently facing, and your current emotional state.

I cannot promise that the risks I have told you about or other unknown problems will not happen. If you or the Principal Investigator feel that you need to talk to someone about

some of the feelings that came up for you while filling out the surveys, an appropriate referral will be made.

D. POTENTIAL BENEFITS

The information gathered in this study will give us insight into how women of African descent cope with the stressors in their lives. This in turn can then be used to help other women, that may be struggling with similar stressors, come to a place of psychological well being.

F. QUESTIONS – WHO TO CALL

I want you to ask questions about any part of this study or consent form either now or at any time in the future. If you have questions about this study, call the Principal Investigator, Portia Pieterse at 202 884-6977. If you have any questions or concerns about your rights in this research study at any time, and would like to talk to someone other than the researcher, you are encouraged to please call Lissy Wassif, IRB Administrator at City College of New York, at 212 650-5418.

G. CONFIDENTIALITY

I will keep the records of this study confidential. I will not tell anyone you are in the study. Each study packet will receive a unique number that will not have your name attached to it. The federal government can review the study records to make sure we are following the law and protecting participants in the study and to make sure our results are correct.

H. REMUNERATION

As a token of my appreciation for the time you have taken to complete this survey and to be part of this very important project, you will receive $20 in cash.

CONSENT:

As you may well be aware, HIV in our society is viewed with stigma. Therefore in order to minimize the risk of encountering stigma for being part of an HIV study, and since the only document that would link you to this study is the consent form, I am wavering written documentation of consent. By completing the study packet, you agree that you have talked to the Principal Investigator about the study and understand it, and agree to be in the study. You agree that I have talked to you about the risks and benefits of the study, and about other choices. You do not give up any legal rights by signing this form and you are not releasing me from any responsibility if I do anything wrong. You may withdraw from the study at any time and no one will mind and nothing will change about your medical and psychosocial care other than not being in the study. A copy of this form will be given to you to keep.

Please call the Principal Investigator, Portia Pieterse, at 202 884-6977 if you have any questions.

INVESTIGATOR'S AFFIDAVIT: I certify that I have explained to the above individual(s) the nature and purpose of the study, potential benefits, and possible risks associated with participation in this study. I have answered any questions that have been raised.

Signature: _____ Date: _____

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